

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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EDITED BY ARTHUR MEE

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AMAZING CREATURE COMES TO EUROPE

RIVER EMPTIED OF ITS FISH

NATURE'S WARNING TO HER WASTREL CHILDREN

Tragedy of the Salmon of Fraser River

PUNISHMENT OF GREED

By Our Natural Historian

Here is a startling example of the criminal greed and waste of man.

Whenever we wish to give an example of the abundance of life we quote the Fraser River, on which Vancouver stands, in British Columbia. Fraser River, with its tale of uncountable salmon, stands as a marvellous example of the prolific life of these waters. It has never been possible to number its salmon as they have swum up from the sea to spawn; but steamers on this river have flung up with their paddles such enormous quantities of salmon that the vessels have nearly sunk beneath their weight.

No Salmon Left to Lay Eggs

Yet this year hardly a salmon has been seen in this famous river! Warning after warning has been given in past years that greedy companies were trapping too many salmon at the river mouth, seeking to make their fortunes quickly at the expense of posterity. And now they seem to have succeeded. They have taken so many fish from the river mouth that not enough have gone up to lay their eggs.

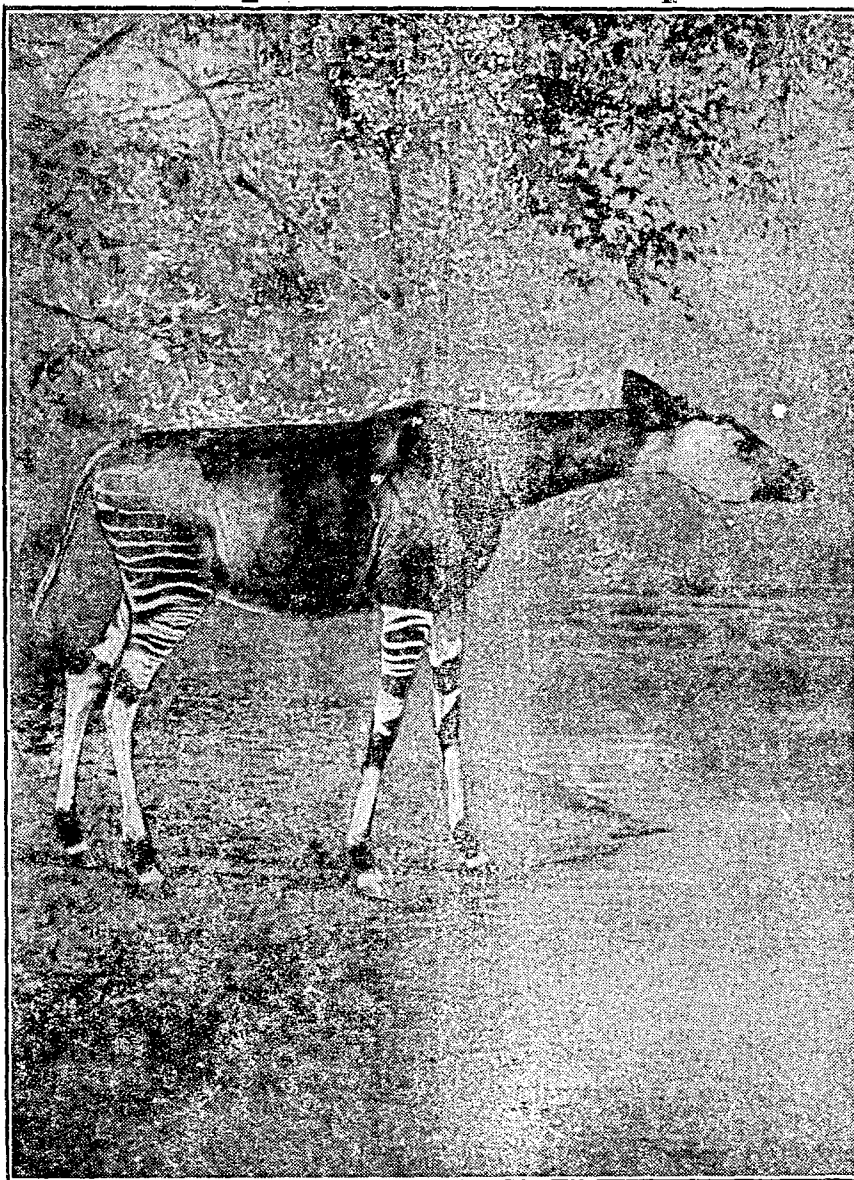
The present canning season has been an utter failure, and one of the great industries of British Columbia is threatened with extinction. In 1913 the catch represented 780,000 cases, or salmon weighing nearly 40,000,000 pounds.

How to Save the Salmon

Pessimists say that the Fraser River salmon are all doomed, but that is nonsense unless men doom them. They are not doomed if Parliament bids the packing industry hold its hand for a season or two. The few salmon which survive could re-stock the whole river. Every female salmon lays 900 eggs for every pound of her weight, so that from a 20-pound salmon we may get 18,000 eggs in one season. More fish must be allowed to escape the nets—that is all.

The numbers of Tay salmon have been enormously increased in this way. In Fraser River we see a repetition of what selfish and short-sighted men have done in outraging Nature elsewhere. They have exterminated the dodo, the solitaire, the great auk, the passenger pigeon, one of the most interesting of the seal family, one of the finest of the zebra tribe, and they almost exterminated the last of the bison. Before they quite empty Fraser River of the fish which have given it world-wide fame, let the Parliament of British Columbia cry Halt! E. A. B.

First Okapi Reaches Europe Alive



An Okapi, the rarest animal known, with its home in the gloomy African forests, has just reached Europe alive. See story on page 7

FELIXSTOWE FURY AND THE SPIDER WEB

Of all the giant British flying boats, Felixstowe Fury was the most famous.

She was at first chosen to fly the Atlantic, but the American Navy was too quick for our Royal Air Force, and the Fury was then selected for opening up the airway from England to South Africa by flying up the Nile and over the great African lakes. But as she set out from Harwich for the 8000 mile flight a mysterious disaster occurred.

The Fury sped along the surface of the water for a quarter of a mile down wind, and her pilot turned into the wind to make the flight. But something was strangely wrong with the well-trying boat. She dipped on one side, and then nose-dived into the sea. All the crew were rescued except the wireless operator, who was drowned.

The tail of the Fury still stuck out of the water, and arrangements were made to raise and tow her back to the slipway. Though the famous boat was not completely lost, her misbehaviour in a sudden change of wind was a stain

on the record she and her sisters had made during the war. They saved us from famine and defeat.

These great flying boats were designed by Colonel Porte of Felixstowe, and they became the spiders of the Spider Web—a sort of map of the sea round the Dutch light vessel on the Hinder Ground. It was divided by spidery circles and straight lines into small sectors, in which were marked the spots from which U-boats sent their wireless messages. Over the sectors flew the giant machines, carrying wireless men and bombs.

As the enemy submarines emerged to find the light vessel and direct their course by it, the enormous mechanical flying spiders hummed up. Some U-boats tried to fight with their guns, some dived and tried to steal away under the sea, but the flying boats dropped their depth charges and called up destroyers and chasers.

The result was that the strength of the main German submarine campaign was broken in the Spider Web.

LIKE A MIRACLE Little Boy's Fall from a Train

REMARKABLE ADVENTURE IN A TUNNEL

One of the worst tunnels in England runs under the Crystal Palace. It is a disgrace to everybody responsible for it, for it has no means of ventilation, and it is astonishing that a country with a Ministry of Health should compel millions of people every year to pass through this stifling atmosphere.

At one end of this tunnel is the Sydenham Station of the South Eastern and Chatham Railway, at the other end is Penge, and there is a mile of tunnel between these stations.

Search Party Goes Out

Early one evening, not long ago, a widow lady in deep distress got out of the train at Penge and informed the officials that her little boy, six years old, had fallen out of the carriage window into the tunnel. Evidently the poor lady had been too much distressed to stop the train by the communication cord, but the officials instantly stopped all traffic on both lines and sent a search party through the tunnel.

A passenger train was held up at Penge while the search was being made, and the terrible anxiety of the boy's mother was shared by the passengers in this train who learned the cause of their delay.

A Rest on the Rails

The search went on for about twenty minutes, and then the searchers found our little man—sitting on the rails! He was covered from head to foot with soot and grease, but he was alive and perfectly calm, and he had no injury worth speaking of.

They put him on a stretcher and carried him through the tunnel into the glorious sunlight; and there his mother received him overjoyed, and the whole trainload of people looking on had one of the happiest moments of their lives.

It is little short of a miracle that he was not hurt, and very surprising that he was not killed.

WHAT'S IN A MAN?

What is man? asked David. A chemist has been answering the question.

A man weighing about eleven stone would produce—if his body were converted into hydrogen and other gases—some 3500 cubic feet of gas, worth about 11s. 2d. for illuminating purposes!

He would also contain sufficient fat to make a fifteen-pound candle, enough carbon to make 9000 pencils, enough phosphorus—about fifty ounces—to make 800,000 matches. His body contains sugar equivalent to sixty lumps, and twenty spoonfuls of salt.

The contents of a thousand eggs would provide all the necessary ingredients for making his body anew.

The French People as They Are MOST CIVILISED RACE IN THE WORLD

Manners and Character in the Beautiful
Land of Liberty, Equality, and Fraternity

THRIFTY PEASANT PEOPLE & THEIR PLEASANT WAYS

BY OUR INTERNATIONAL CORRESPONDENT—Continued from Last Week

The French are said to be the most civilised race in the world today. Let us think what this means.

First of all, what does civilisation mean to you? If you really understand a word, some clear image comes into your mind when you hear it or read it. If you do not understand it, your mind is merely blurred. What image fills your mental sight when civilisation is mentioned?

Do you not see two men, one dirty and clad in rags or skins, fierce in aspect, rough in speech, savage, and greedy in his behaviour, always thinking of himself and his own advantage; the other clean and tidily dressed, with a kind expression on his face and pleasant words in his mouth, and delighting to have everything done decently and in order, taking pleasure in the beauties Nature spreads before us and in the conveniences of man's invention, wide streets, seemly public buildings, parks and gardens for the use of all?

When the French made their revolution they took for their motto the words "Liberty, Equality, Fraternity." That was a step towards greater civilisation. If all men and women were free and equal, and behaved to each other as brothers and sisters should, then we should have reached a state of civilisation that has never yet been known. The French have not reached this, but they have striven towards it more than any other nation in Europe.

The Courtesy of France

Let us see the working of this motto in the French character. The habit of lifting the hat is much more common in France than among us. A Frenchman lifts his hat when he goes into and out of a shop. He lifts it not only when he meets a woman whom he knows, but when he meets a man friend. This is true of all classes.

The poorest Frenchman would consider himself lost to all sense of decency if he failed in this test of what he considers good manners or civilisation. He expects, in his turn, to be treated as a free and equal brother. For example, he expects to be addressed as "Monsieur." Women in every rank, the domestic servant and the duchess, the match-seller and the marquise, are addressed as "Madame" or "Mademoiselle." All French people hold that they have a right to the same respect and courtesy which they use towards others, regardless of differences in wealth or social position.

No Dirty Taprooms

Another test of civilisation is, How do people regard drunkenness? The French despise the man who drinks away control over his mind and body.

They are disgusted by him. They have a law by which he can be deprived of his rights as a citizen, the right to sit as a jurymen, to hold public office, to vote at elections. In France they do not have public-houses. They have cafés.

The French working man would never stand at a counter in an uncomfortable bar smelling strongly of stale beer, where he could only stay so long as he continued to order one drink after another. His café is a warm place filled with tables and seats, where he can stay the whole evening by taking a cup of coffee or a glass of light beer, and can look at the newspaper, or play cards or dominoes with his friends.

In their houses the French of the well-to-do class do not display the same instinct for comfort as the English, but generally there is more taste and care in the arrangement of poorer homes.

French women take a pride in their homes as they take a pride in the clean, well-fed appearance of their children. They are also good cooks, and know how to prepare meals which are both nourishing and palatable. Cooking is well taught in French schools, and it is recognised that people cannot be civilised unless their food is cooked.

French children live more with their parents than do most English children. They are also more encouraged to talk and ask questions and to form their own opinions. At the same time, they are brought up to behave well—to take their hats off when they meet people, to answer politely, to ask in a courteous way for anything they want.

Old-Fashioned Government

In schools their manners are not looked after at all, but this does not matter so much, as their parents make it a duty to see that their children are well brought up. To call a French person "badly brought up" is the worst insult you can offer. French boys have not until lately played games as we do, nor have they had their sense of honour cultivated by being trusted to do what they are told.

The French are a hard-working and enterprising race. They developed the motor-car. In their Government offices, on the other hand, they are most unenterprising. Officials exercise a great deal of power, and often consider themselves the masters, not the servants, of the public. The mass of the nation does not mind this. They have been accustomed to it for so long. Although their form of government is Republican and not monarchical, which means that they have an elected president instead of a king, they are a conservative people; they like to keep themselves as they are.

This is especially true of the French farmers, who form a large part of the nation. Almost every Frenchman has an ambition to own a piece of land and to grow something on it. He likes to feel that he can be independent. No people are more thrifty. They save money to buy land, to secure themselves from poverty in old age, and to provide their daughters with a "marriage portion."

The French Girl's Chance

It is difficult for French girls to get married unless they have a little money to start housekeeping with. If a girl has not found a husband by the time she is thirty, there is little chance of her finding one after that, so she will very likely enter a convent and become a nun, vowed sometimes to good works, but sometimes spending her life in vain repetitions of prayer, and doing nothing.

The French are mostly Roman Catholics, and there used to be many religious houses both for monks and nuns. But some years ago, when it was believed that they were using their money to assist plots against the Republic, they were ordered to submit to inspection, and on refusing they were ordered to leave the country.

In one direction the French remained uncivilised for a long time. They could not get rid of their delight in the "glory" of military strength, parade, and victory. They were misled by this false glamour into many misfortunes, but at last they began to see that it was a will-o'-the-wisp, enticing them into marshy and dangerous places.

The desire of the mass of the people is now to live in peace and safety on friendly terms with all around them. That, they think, should be the aim of all civilised men.

H. F.

WREN'S TELESCOPE

Great Idea That Failed

WHAT HE MEANT TO DO
WITH THE MONUMENT

What was meant to be the most wonderful telescope in the world stands in the heart of London, and thousands of people walk up and down inside it every year.

It was made from designs by Sir Christopher Wren, who was at one time Professor of Astronomy at the University of Oxford, and it is 202 feet from end to end. Curiously enough there are 345 black marble steps inside, and from the end of this wonderful column you get a fine sight of the heavens and a glorious view of London on a clear day. It is made of stone, of which there are over 20,000 cubic feet, and the cost was about £14,000.

Where is this remarkable instrument to be seen? Well, it stands in the open air on Fish Street Hill near London Bridge, and it is known as the Monument—that fine Doric column that marks the place where the Great Fire of London began 253 years ago this week.

Wren's Idea

Very few people know that Sir Christopher Wren, when he designed this monument, intended that it should be left hollow to serve as a telescope for studying the heavens. A large object-glass had been presented to the Royal Society by Christian Huygens, the famous Dutch astronomer, and Wren thought his great column would make a fine tube for it. In those early days of the telescope a powerful instrument had to be enormously long, but the architect-astronomer found, to his disappointment, that his Monument, though it was the tallest single column in the world, was too short for a big telescope, and the great idea had to be abandoned.

So they put inside the tube a great staircase, and crowned the summit with a vase of brazen flames 42 feet high.

Boy Who Slipped Down

It is interesting, however, to know that the Royal Society did at first use the Monument for astronomical purposes. They soon found that the vibration of the column was too great for accurate observations to be made, and so the column ceased to be used for this purpose. Then the idea grew up that the Monument was not safe, but those who can speak with authority say that its construction is so scientific, and its workmanship so perfect, that it can bid defiance to anything but fire and earthquake for centuries to come.

Several people have jumped or fallen from the top of the Monument; one man fell when bending over to look at an eagle that was kept suspended in a cage at the top; and so an ugly railing was put round. In 1732 a sailor slid down a rope suspended from the top to a tavern in Gracechurch Street, and the next day a waterman's boy slipped down, too.

A BOY SCOUT TRAGEDY

It has come to be known that among the victims of the Turkish massacres at Aidin, in Asiatic Turkey, were 20 Boy Scouts and a wealthy man who gave up his time to helping and befriending them.

He was their scoutmaster, and in the hour of danger, though they could have escaped, he and his boys refused to leave the Christian population. He and his brave Scouts perished together.

MAILS DROPPED ON A SHIP

The first delivery of mails from an aeroplane to an Atlantic liner has been made on the Adriatic. The Adriatic left New York, and an aeroplane followed it an hour later, dropping a mail-bag on deck. It is hoped in this way to be able to save many hours, and perhaps a day, in the delivery of Atlantic mails.

WHY EVERYTHING IS SO DEAR

The Great Demand and
the Short Supply

TEN PEOPLE FOR FIVE CHICKENS

By Our Commercial Correspondent

Things were getting dear before the war, and the war has made them very dear indeed. Why is that?

Price rises or falls according to whether the supply of goods is greater or less than the demand. If there are more chickens for sale than people wanting chickens, the price of chickens falls. If, on the other hand, only a few chickens come to market and there are many buyers of chickens about, the price of chickens rises.

This is what is called the law of supply and demand, and it is always at work in connection with everything bought and sold, as long as there is a free market. It is possible for a government to interfere with the law, but in ordinary times this is not done.

When Things are Short

Not only does a shortage of supply enable those who sell to charge more for their goods, but it is very remarkable that quite a small shortage of supply is sufficient to raise prices considerably. That is to say, under the ordinary operations of supply and demand, a shortage of supply is followed by a rise in price out of all proportion to the shortage.

It is also true that while a shortage of supply is immediately followed by a rise in price, an increase of supply is not so rapidly followed by a fall in price, unless the articles are perishable. For example, if there is a glut of plums the sellers must bring down their price rapidly, or the fruit will rot on their hands, but if the article can be stored the fall in price is often by no means rapid, because the goods can be kept without damage.

Lost Labour of Men

This working of supply and demand occurs in peace. Now think of what occurred in the war.

Millions of men in Europe became soldiers, and consumed far more goods than if they had remained in civil life. Thus the demand for goods increased as compared with peace time. At the same time the production of goods fell, because workers were turned into soldiers. Therefore European nations had to buy more from other parts of the world.

This position was soon made worse by the operations of the German submarines, which sank ships and still further shortened supplies.

Thus we got a position in which the world as a whole, through the extra European demand, was calling for more goods than in peace time, even while the supply of goods was less.

At the Seller's Mercy

So, for many things in Europe, the position might be compared to a market for chickens in which only five chickens were offered, while ten were wanted. In such a position the seller could demand any price he liked, because he had the consumer at his mercy. The seller of wheat, or tea, or any other commodity, could ask what he liked, save for the checks put upon him by the various Governments.

If the various Governments had not interfered, prices would have gone to such amazing heights that many poor people would have starved.

WILL FAMINE COME? THE DANGER AHEAD OF EUROPE Not Enough Useful Things Made AND TOO MANY USELESS THINGS BEING BOUGHT

Nearly always in the old days war was followed by pestilence and famine. Science has stopped pestilence, and the rationing systems of the Allies have averted the worst consequences of the shortage of food.

But the situation is still very grave. For five years 50,000,000 men who should have been producing things have been destroying things; other men have been busy feeding these 50,000,000 and providing them with materials of destruction; and the result of it all is that the world's store of useful things has become exhausted. The world's store-cupboard must be filled.

This is not being done quickly enough. Armies still continue large, there is still enormous expenditure on useless things, and the men who have ceased to be soldiers are not getting back quickly to their proper work again.

Can we wonder supplies are short and likely to be shorter, that everything is dear and becoming dearer, and that thoughtful people look to the future with anxiety, if not with fear?

How the World Stands

The man who has watched the facts most closely is Mr. Herbert Hoover, the American Food Controller. Mr. Hoover has clear views, which are that we need not have a famine in Europe if men are wise and get to work on the right things, swiftly and diligently, but if they do not get to work effectively, if they continue spending on luxuries, keeping large armies and fighting, there must be a famine, and perhaps the terrible bloodshed that always comes when nations grow depraved for want of food.

This is how the case stands.

In Europe 15,000,000 families are being fed on unemployment doles! They are consumers, but not producers.

Europe is short of food for 100,000,000 of its people; the food for them must be imported.

America, which has accumulated enormous quantities of gold, and is a creditor to all the world, can supply a good deal of this food for the moment, but not for long, and, as she does not want much that the other countries can send her in return, they will remain in debt to her.

What is the remedy? The only real remedy, says Mr. Hoover, is for Governments to get their people to work on useful things and for individuals to stop buying useless things.

Worker Worthy of His Hire

What Governments must do is to see that the useful producer is well rewarded for his labour. That will stimulate him to produce more, and increased output is the only way to our salvation. All the European countries that have been squandering their wealth in war must start working hard and thriftily—first on food, and then on the next best things, but not at all on luxuries. Labour must be given its tools and set to work on the necessities of the people.

The world's best friend is the man who produces useful things; the world's worst enemy is the man who produces needless things or the woman who wears them. What we all have to do is to get on with our work. We must buy nothing we can do without.

If we will save and work there will be enough to go round and famine will be driven back; but if we all go on spending, and if Governments go on squandering, famine will come, and nothing will be able to stop it. America can save us for a little while, but not for long: our salvation is in our own hands.

Boys & Girls Who Knew What to Do NEW NAMES ON THE ROLL OF HEROES

Clever Boy on a Canal Bank
Brave Girl on the Moonlit Sea

PEACE HATH HER VICTORIES NO LESS RENOWNED THAN WAR

The age of heroism did not pass when the Great War closed. Quite a little book of golden deeds comes to hand, and we give below the portraits of eight brave heroes.

One is Henry George Grout, a youth of 18, employed on the railway. He heard screams of frightened children coming from the banks of the Surrey Canal, and, running towards them, found a little fellow in the water just beyond arm's reach. There was nothing available to reach him with, but Grout knew what to do. He lay down on the bank and told the children to sit on his legs while he stretched out as far as

courage in rescuing a boy who had fallen into the river Lea at Enfield Lock.

Two private soldiers are in our little gallery. One is Private Sydney Sell, who gallantly rescued a woman and her child from drowning in the Surrey Canal. The other is Private Pollington, who paid the heavy price of his life to save two German children. The children were drowning in the Rhine when this brave soldier dived in to rescue them, saving their lives, but losing his own.

Memories of Grace Darling come to mind as we read of Irene Sayers, the 16-year-old heroine of West Norwood. She was boating on the sea one moonlight



Major F. B. Fowler



John R. Maskame



Henry George Grout



Irene Sayers



William Driscoll



Private Sydney Sell



Police-Sergeant Stiff



Private H. Pollington

SAVERS OF LIFE WHOSE GOLDEN DEEDS ARE TOLD ON THIS PAGE

he could to grasp their drowning companion. So he saved the little fellow's life, thanks to the lessons he had received in First Aid while at Grove Street Council School in Deptford.

Another portrait is of Major F. B. Fowler, the pilot of an Eastbourne aeroplane. His heroic feat is probably the first of its kind, for he dived from the float of his aeroplane and rescued a girl who was in peril of drowning while bathing off Bexhill. The major brought her safely to the beach, swam back to his machine, and continued his journey.

The heroism of William Driscoll, a London boy, was in saving a schoolgirl of ten, who was on the very point of drowning in the Deptford Canal. She had disappeared three times below the water, and several vain attempts had been made to save her when Driscoll dived in.

John Maskame is a Peterhead boy of 16, and he now wears a silver watch presented to him by the Carnegie Hero Fund for rescuing a child from drowning in Peterhead harbour.

Police-Sergeant Stiff has received a grant of £6 from the magistrate of Bow Street, London, in recognition of his

night at Folkestone when there came from a boat farther out a cry of distress.

Two people, a soldier and a young lady, were boating a mile and a half from shore when their boat capsized. They were thrown into the water, but managed to cling on to the up-turned craft, and made their voices heard over the silent sea. They shouted from the sea, and thousands of people shouted back from shore, but Irene, who was taking her last row before returning to London, shot away in her little boat, alone, to save them.

Many boats started, but none could go at Irene's pace. She had nearly two miles to row, but she rowed magnificently, reached the terrified couple just in time, navigated her boat into position, and told them what to do. The girl in the water was hysterical and almost drowning, but Irene got the stern of her boat close up to her, and by clever management hauled them both in.

They were exhausted and ill when they reached land, and Irene fainted. But she was soon revived, and the crowds of holiday makers went wild over her, with her Grace Darling spirit of heroism and endurance.

SHARK AMONG THE BATHERS A Devonshire Surprise HOW IT WAS SHOT AND LANDED

A shark has suddenly made its appearance in the midst of a party of bathers at Croyde Bay, North Devon. It was over seven feet long, and the bathers lost no time in darting to the shore, safe, but sadly scared.

As luck would have it, there chanced to be present a courageous and resourceful man in the person of Mr. C. T. Cuss, assistant manager of the great Swindon locomotive works, and Mr. Cuss had a gun. He had the sea to himself, he and the shark; and as the shark could not come out to him, he went in to the shark.

The man-eater could not have been much afraid, for it kept its place until he was able to take a good aim and get home a fatal shot. Then five men got the shark ashore, and it was packed off to Swindon to be stuffed and placed in the Mechanics' Institute there.

Fishermen of Penzance

Sharks inhabit warm seas, so that they cannot come to England, it has been said; but we have warm seas in summer and the sharks come to them, only retiring to warmer depths when the waters chill in the autumn. Fishing was much interrupted during the war, and fishermen assured us, during the hot weather of last year, that our seas held more sharks than were ever known before.

There are innumerable instances of sharks in British waters, and many a swimmer who has thrown up his hands and gone down, a supposed victim to cramp, has probably been seized by an unseen shark.

Only seven years ago the Penzance pilchard fishery was suspended owing to the presence of these sea pirates, four white sharks, each between 20 and 30 feet long, continually attacking fishermen and destroying their nets. At last a naval officer went out and shot them.

He knew how to deal with them, for he had met sharks off the west coast of Africa, where he helped to kill one which was found to contain a hand with two rings on the fingers.

A BRITISH EMPIRE WAR All in the Day's Work

Wherever the frontiers of civilisation and semi-savagery meet there are sure to be little wars, for the uncivilised man is first of all a fighting animal.

While Europe, Eastern Asia, Africa, and all the seas have been resounding with the Great War, one of the customary little wars has been going on unheard at the fringe of the British Empire. The scene of it has been the northern part of the peninsula of Further India, where two tribes, the Chins and the Kukis, broke out in rebellion nearly two years ago.

The Burma Military Police and Assam Rifles have been ever since reducing them to submission, and, after driving 750 miles of bridle paths through their almost impenetrable jungles, have brought order and peace to 6000 square miles of territory. Only when this work is finished do we hear of it at all; it has been just a part of the ordinary day's work in the British Empire.

BRITISH RAILWAYS WOULD ENCIRCLE THE EARTH

Last year no fewer than 337 railway servants were killed in the United Kingdom by accidents, and 2716 were injured. The official report giving these figures also gives the length of railway in the United Kingdom as 23,709 miles.

As most of this consists of double lines—an up and a down track—the total mileage over which a train could go was 40,808 miles, or, including sidings, 55,867 miles, more than enough to make a double track round the earth at the Equator.

QUEER HAPPENINGS ON A CITADEL

Little Gammarus and
His Big Appetite
EATING TILL HIS SKIN CRACKS

By a Laboratory Correspondent

One of the most useful scientific laboratories in the United Kingdom is the Marine Laboratory at Plymouth, and the Children's Newspaper has appointed a correspondent who will tell us what they are doing there.

There is a very interesting little fellow we are now experimenting with in the Marine Laboratory on the Citadel Hill at Plymouth. Its name is *Gammarus Chevreuxi*, and it belongs to a very large group called Amphipoda, from the Greek words meaning "both feet," for it has swimming as well as walking feet.

Amphipods are found everywhere—in Polar seas under the ice, in the tropics, up high in the mountains, in rivers and lakes. Blind ones live in caves and wells; and in the sea they swarm in myriads and form food for fishes.

Little Dustman of the Beach

Some make nests in seaweed; some bore tunnels in piers and wharves.

As a rule, they are useful animals. The sandhopper, which belongs to the group, keeps the beaches clean, and acts as the little dustman of the seashore by clearing away all the refuse thrown up by the tide. If you turn over any heap of rubbish, you will find swarms of them busily devouring it.

Gammarus Chevreuxi comes from a salt marsh. The mother *Gammarus* lays 50 or 60 eggs at a time, and carries them about in her pouch until they hatch. When the young ones are a day old, she opens the pouch, and they swim away on their own. They eat and eat until their skins get too tight, and then they throw off the old skin and grow a new one.

Throwing Off His Coat

It is very interesting to watch one doing this. It gets into a sheltered place under the seaweed, and begins to make tremulous jerking movements. The skin cracks across just behind the head, the animal arches itself up, and with a sudden movement squeezes the tail end of its body out of the crack, and then, with one or two jerks, it frees its head and the two front pairs of legs. The new skin is quite soft and crumpled, but it soon swells out and hardens. This moulting takes place every three or four days, until the little creatures are grown up; then about every month.

The eye of *Gammarus* is made up of numbers of lenses, the number increasing with each moult until there are about 60 lenses in all. In the wild *Gammarus*, the eyes are always black, but we once got some with red eyes, so we began experiments with them to see what colour the eyes of the children would be. We found that black-eyed fathers and mothers always had black-eyed children, and red-eyed fathers and mothers always had red-eyed children.

Black-Eye and Red-Eye

Then we took a black-eyed father and a red-eyed mother, and what do you think happened? All their children had black eyes!

But, although these children look exactly like their black-eyed parent, they are really different; they are what we call hybrids—a mixture of black and red, and the difference comes out in their own children. If we take a hybrid father and a hybrid mother, out of every four of their young, there will be three black-eyed and one red-eyed; that is to say, one black-eyed like the grandfather, two black-eyed like the parents, and one red-eyed like the grandmother.

The first 1004 young that were hatched from hybrid parents were 753 black-eyed and 251 red-eyed, and this entirely agrees with the discovery of the monk Mendel, which scientists call "Mendel's Law of Heredity." E. W. S.

THE MILL THAT DID NOT STOP

How they do Things in Yorkshire
CARRYING ON DURING THE
COAL STRIKE

The coal strike in Yorkshire, through which the miners lost millions of pounds in wages, must be counted among the disasters of industry in these unsettled times. But it is the way of men to bring good out of evil, and it is an ill wind indeed that blows no good at all in Yorkshire.

Scores of workshops and mills were closed down for want of coal while the miners were on strike, but there was one mill-owner near Leeds who was not to be beaten. He never will be beaten. He is one of the men who were made to leap over barriers and overcome whatever trouble creeps their way.

As his stock of coal went down the molecules of our Yorkshireman's brain bestirred themselves and spun round faster, and a bright thought came to him. He made a piece of apparatus that would fit inside a boiler and spray tar. He bought up hundreds of tons of tar and burned them in the boiler in place of coal. He kept his mill going every day, and it has never stopped, and the result of his experiment has been to prove that the tar is nearly twice as efficient as the coal, considering the cost of both.

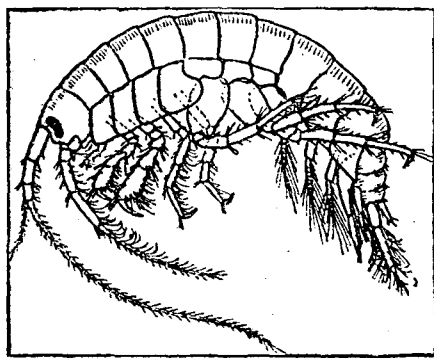
We understand that his telephone bell has been ringing for days without stopping, and there are many people who want to know about the coal-tar spray. There will be many more, for new ideas have a way of solving old problems. What we like best, however, is the brain that thinks them out.

A BRAIN AT ITS BEST

Interesting Government
Experiments

A very interesting experiment has just been tried by the National Insurance Commission. The Commission has a Medical Research Committee attached to it, and the Committee has just been trying some experiments as to the results of alcohol on work. The results are very striking.

The experiments lasted some weeks, and the Committee chose typewriting



Little Gammarus, Six Times His Natural Size.
See Next Column

as a test. Is a typist who does not touch alcohol more accurate than a typist who does? That was the question they set out to solve.

They tested eight men and five women, and found that, however little alcohol the typists took, the result was sure to be more mistakes. It became quite easy to tell what the typist had been drinking by the number of errors in the typescript.

Dr. H. N. Vernon, who conducted the experiments, says that, while very moderate quantities of alcohol may reduce manual skill, they can seldom, if ever, improve it, and if taken on an empty stomach it must quite appreciably reduce the skill. The end of it all is that if workers must use alcohol it is better to use it after their work is done.

PROUD BOY GOES HOME

Youngest Australian in
the War

A PATHETIC STORY

The youngest Australian soldier to enlist was Ernest V. Lee. He spent his 15th birthday in France. He went right through the war, and returned to Australia.

Ernest was the son of Mr. H. Lee, of Greville Farm, Mossface, in Victoria, and was at school when war was declared. He tried to enlist then, but was hunted away as his short pants betrayed his age. He got work at a grocery store, and with his first fortnight's wages he bought a pair of long trousers and tried again. His parents refused to let him go, but Ernest went without permission, enlisted under another name, and gave his age as 19.

The Minister for Defence was moved in the matter, and for two years efforts were made to bring the boy back. When he returned it was found that the training had developed him into a man and he received a stirring welcome. After two months he again enlisted, and was again rejected, but he interviewed the State Commandant who sent him to Duntroon Military College, where he was trained as an officer.

Subsequently he went out to join his brother Jack, who was on duty in Europe, but, although both brothers were together in France, they did not meet. One day Ernest went on leave to Paris, and there he learned of his brother's death seven hours before.

Ernest remained in the Army, and came through the war successfully. Then he went home again to Australia, and a few weeks ago this fine boy, with this proud record behind him, was accidentally drowned at Bruthen, in his native state of Victoria. His death has aroused widespread sorrow.

RICHEST COUNTRIES

America Easily First

NATIONAL & PERSONAL WEALTH

A very clever statistician, Dr. J. C. Stamp, shows us what the great nations of the world were worth when the war began.

If we put them in order according to their total wealth in 1914, the first seven are:

United States ..	£42,000,000,000
Germany ..	£16,550,000,000
United Kingdom ..	£14,500,000,000
France ..	£12,000,000,000
Russia ..	£12,000,000,000
Austria-Hungary ..	£6,200,000,000
Italy ..	£4,480,000,000

But if we ask which are the richest seven countries measured by the amount of wealth per person we get a very different result. These are the countries and the amount of wealth for each person in them.

United States ..	£424
Argentina ..	£340
United Kingdom ..	£318
Australia ..	£318
France ..	£303
Canada ..	£300
Germany ..	£244

It is very surprising to see one of the world's new countries, Argentina, second in this list. Indeed, in these seven richest countries, measured in this way, are three new lands, Argentina, Australia, and Canada.

The United States heads the list by either way of measurement, and the war has certainly increased her lead, because she was untouched by the fearful conflict under which Europe has suffered.

£4,000,000 AND 4,000,000 TONS

The total loss of coal through the Yorkshire strike is reckoned at about 4,000,000 tons, and the loss to miners in wages was about £4,000,000.

LIKE A GIANT'S BONFIRE

Star that Blazes Up Once
a Year

REVOLVING LIGHTS OF THE SKY

By Our Astronomical Correspondent

In all those groupings of the stars which from time immemorial have been called constellations there is always at least one star known to fame by its brilliancy, or colour, or something strange about it.

There is one constellation known as Cetus, the "Whale," which would not be at all remarkable if it did not contain a star called Mira, or Mira Ceti, the "wonderful star of the whale," which has been known for thousands of years.

It is one of the kind of stars known as variable; that is to say, its light flashes out and grows brighter and brighter till it attains full brilliancy, and then it begins to wane again, very like the revolving light of a lighthouse seen at sea.

Star that Blinks Every Seven Years

These variable stars are like revolving lights in another way; some revolve quickly and some slowly. For example, Algol, the famous Demon Star—so called, as Sir Robert Ball used to say, because it winks!—grows dim and grows bright again in eight hours, and does so every three days. But there is another variable star which was found some ten years ago in the constellation of Perseus, where the August shooting stars come from, and which blinks only every seven and a half years.

You may naturally suppose that these revolving lights of the sky become changed in their brightness from different reasons, and you will be right.

Some of them, like Algol, become partially extinguished because they take in company with them in their journey through space, a dark companion revolving round them, which, when it comes between us and them, cuts off part of their light. But there are others which lose their brightness—sometimes swiftly and sometimes slowly, sometimes regularly and sometimes in spasms—from unknown reasons.

Every 332 Days

Some of the variable stars seem to have a regular pulse in their fires; and we may say that some astronomers believe that our own sun has a pulse like that, and varies regularly in its brightness, though very slightly. Other stars, much older than our sun, seem as if they were dying down and flickering up again into greater brightness every now and then.

But the changing light of Mira Ceti is not due to a companion coming between it and our eyes; it is a type of star which blazes up at long intervals into a genuine conflagration—as if some giant were heaping fuel on a bonfire. Mira Ceti has been doing this for centuries at regular intervals of 332 days. It was first proved to be doing so in 1639, and it is rather strange that Al-Sufi, the Arabian astronomer who first described the constellation of the "Whale," does not mention Mira Ceti.

But it is supposed that the star may have been in one of its extinguished periods when he was looking at the constellation, for Mira goes right out of sight when at its dimmest, though at its best it is easily seen by the naked eye.

Twenty Days Late

As it grows dimmer it grows redder; and it may be seen doing that just now, for it should lately have reached its brightest. That is not quite certain, however, for what makes Mira Ceti most peculiar to astronomers is that, though they know exactly how many days it ought to take to grow bright and dim again, it is sometimes 20 days too soon, or 20 days late. Otherwise, it is a most punctual star, and though it is hurrying away from us at the rate of nearly 40 miles a second, we know for certain that many generations yet will see its fires lighted once every year, without fail.

THE WAY OF THE FLYING TRAVELLER—PROBABLE AIRWAYS ROUND THE WORLD

OUR world-map shows this week the great air-routes that will probably become the regular airways round the earth.

In a few months we may be able to travel by air to New York, South Africa, and Australia, at fourpence a mile.

Inspired by the great Atlantic successes of the R 34, Messrs. Vickers, the most powerful British armament-makers, hope to arrange a world-wide airliner service, with a capital of millions.

Such a service would bring every important city in the world within ten days' voyage from London. Lisbon would be the main traffic junction for the Atlantic, and Cairo the principal junction for Capetown and Sydney. The Atlantic route will run from London to Lisbon and the Azores, for New York and San Francisco; and from Lisbon to Sierra Leone, on the West African coast, for Brazil, Argentina, and Chile.

On the Lisbon-Azores line, the fogs of the northern Atlantic will be avoided. New York will be reached in two and a half days, San Francisco in four and a half, Cairo in one and a half, Colombo in Ceylon in four and a half, Australia in seven days, and Capetown in five and a half days, including a stop at Nairobi, the East African junction.

FOR the new British airships, with a 15,000-mile range, fewer aerodromes and landings are necessary, so that the cost of travel is considerably reduced. The speed of the new airships, moreover, will be about five times as great as that of the ordinary passenger liner.

The new airships will have saloons, cabins, promenade decks, and a smoke room, and will travel at a cruising speed of sixty miles an hour, with two or more engines left unworked as a reserve.

Mails will be carried at the rate of threepence an ounce. The fare from London to New York will be £50 single, and from London to Australia £143.

Arrangements are being made for a British aerial mail service between Egypt and India, with Cairo and Karachi as postal aerodromes.

As the great princes of India are becoming keenly interested in aviation, routes may soon be opened for mail services which will develop into light cargo and passenger lines.

The Indian climate is generally marked by clear air and light winds, and in the winter season, when Tibet and Siberia block the northern airway from China to Europe, India provides perfect flying weather for nine days out of ten. There are, however, special

engineering problems awaiting solution in order to make the airway from Egypt to India as good in summer as winter.

It is first necessary to invent engines that will not overheat under tropical conditions, and then to construct metal machines that can stand the great dryness of the atmosphere, and to find wing fabric that can survive extremes of both heat and cold, and escape the destructive effect of intense sunlight.

THE British Empire, with its great tropical possessions, has to meet peculiar difficulties in flying over thousands of miles of scorching desert and steaming jungle. It was India that helped to solve the problem of keeping an air engine working in the extreme cold of great altitudes, for from Indian castor oil was obtained a lubricant that would not freeze on the top of Mount Everest. This made Polar flying possible.

Probably it will be an all-metal machine, with very thin metal surfaces and engines protected against overheating, that will regularly connect England, Egypt, India, Malaya, and Australia with branch lines through Africa to the Cape.

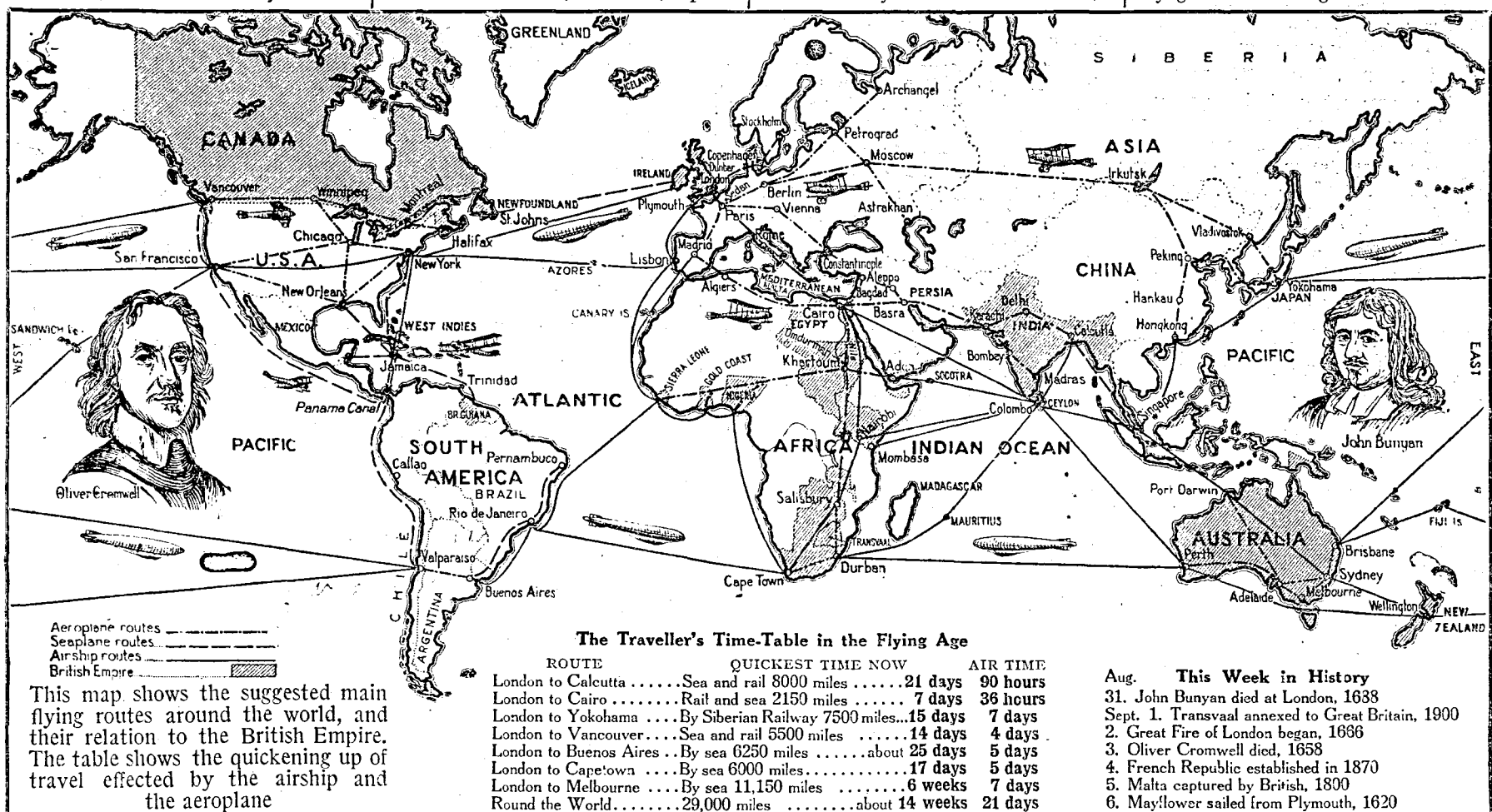
AFTER half a year's experiments in peaceful air travelling, the different work of aeroplanes and airships has become clearly marked.

The small machines will mostly be used for short express flights to distances of about 300 miles. The great airships will be employed in crossing oceans and in long overland flights.

The Aircraft Manufacturing Company, the largest private aerial enterprise at present in the world, is beginning operations by a daily commercial service of express machines between London and Paris. The flight will usually be made in 2½ hours over a distance of 250 miles. There will be emergency landing grounds on the way and relief aeroplanes at fixed points, with weather-signalling stations to help airmen by day and night.

In course of time the London-Paris service will be extended to Rome and other great cities on the mainland, but the main thing is to make the first English and French commercial airway a regular, secure, and profitable success. The aeroplane is easily the fastest vehicle in the world, and is likely to remain so. Besides connecting important cities at a speed of two miles a minute or more, it will become the feeder to the great airship lines that will carry passengers from continent to continent.

Short plane flights and long airship voyages will be the general rule.



WORLD MAP · MAN WHO WOULD NOT BE KING OF ENGLAND · MEN WHO BEGAN AMERICA

JOHN BUNYAN, who was born at Bunyan's End, Elstow, near Bedford, in 1628, was a working-class Englishman whose name has resounded throughout the world.

In early life he was a tinker, like his father before him, and had very little education till they put him in prison for twelve years for preaching.

His strong, active, shrewd, and humorous mind there played a great part. Not able to speak with his voice, he spoke with his pen, and wrote, in a plain style easily understood, the Pilgrim's Progress and other religious books that have been read ever since. In all he wrote more than fifty books, but it is the Pilgrim's Progress by which he will for ever be remembered.

After his early manhood Bunyan was a minister. He had educated himself, and in his writing he unites great simplicity with a kind of romantic beauty that appeals equally to the unlearned and to the finest literary taste.

It was really a great blessing that bigotry thrust this good man into a

prison, and gave him time to write books that are living centuries after his persecutors are forgotten.

OLIVER CROMWELL, who might have been king of England if he had said "Yes" to an invitation, and who was greater than any English king except Alfred, William the Conqueror, and Edward I, and perhaps was even greater than any of these, rose, by his natural force of character, out of the ranks of the country gentlemen, to be the conqueror of the English cavaliers, the Scots, the Irish, and the English Parliamentarians.

He also gave his country a foremost place in the councils of Europe. Cromwell was not a revolutionist but a British Imperialist, who believed in popular government, but kept a firm hand on the reins in a time of change.

He rescued Great Britain from civil war by winning the war. Then his difficulty was to rule in an orderly way when the country was buzzing with hot-headed fanatics of all kinds. Sept. 3, when Cromwell died, was his great

day. On it seven years before he had won the battle of Worcester, and the year before that the battle of Dunbar.

THE simple sailing of the Mayflower from Plymouth, England, to New Plymouth on the Massachusetts coast, was one of the mightiest events in the story of the world.

"Our echoes roll from soul to soul, and grow for ever, and for ever." The echo of that embarkation, rolling from soul to soul and ever growing, came back reverberant when American soldiers began to land, nearly 300 years later, at the old Plymouth, men of the New World returning to redress the balance of the Old World in the name of the freedom that had been the cherished watchword of their far-off emigrant forefathers. The Mayflower was a little ship carrying 102 people, who were the forerunners of a nation that now numbers a million for each person in that little company of Pilgrim Fathers.

The men of the Mayflower went forth to build a State on the foundation of liberty of conscience, and, through much

tribulation, made the land which now is the American Republic a shrine for that lofty and purifying idea.

THERE is but one "Great Fire" in English history, namely, that which began in Pudding Lane in the City of London on Sept. 2, 1666, at one o'clock in the morning, and, in five days, swept over 400 streets, consumed 88 churches, with the old St. Paul's Cathedral, levelled four of the City gates, and licked up more than 13,000 houses.

The fire, regarded for the moment as a calamity, was a blessing in disguise. It cleansed the city of the germs of the Great Plague of the year before, and of wretched slums that were the breeding-grounds of disease, and allowed the scale of the new buildings to be suited more closely to the needs of an age of growing commerce.

Sir Christopher Wren had much influence over the rebuilding of the ruined city, his masterpiece being the present noble cathedral of St. Paul's—a far finer monument to the fire than the Monument itself built for the purpose.

CHILDREN'S NEWSPAPER

AUGUST 30 1919

Work, for the Night
is Coming

If a man will not work, neither shall he eat. Wars are fought and lost and won and their history lies in dust; but Truth remains.

We have lived through these great years. We have seen great spectacles of triumph and defeat, we have seen the heart of man bowed down and lifted up, we have seen the midnight of disaster break with the dawn of hope and rise to the noon of victory; but nothing have we seen more wonderful than this—that through all these stirring times, while the visible powers of nations rocked and reeled about us, the invisible powers behind this world remained the masters of our lives.

They rule us always. The belief in right, the faith in justice, the hope of a great glory that awaits mankind—these things are more than all the possessions of those who put their trust in kings.

The greatest material power on earth was ready for its hour five years ago. Its guns were clicked, its swords were drawn, you could hear the tramping of its million feet; if ever Brute Force had the power to rule mankind its chance was then, for the world was taken unawares, the powers of Liberty were sleeping.

But then there rose against Brute Force the barrier of the Invisible Forces. It rose like a wall in the path of the German Army. The things that are seen were coming on, but the things that are unseen were in their path and nothing could remove them.

What we see is Matter, but even Science, which makes up its mind very slowly, is beginning to believe that Faith is right, after all, and that behind all matter is something more wonderful still, and infinitely more powerful.

So there is. It is the power of God working behind the visible world, working through all these things we see about us, and ordering them to some certain end.

Why do we think of these things now? Because once more the everlasting truth is flashed across our lives that men must obey the law of life or perish. "If a man will not work, neither shall he eat." They are just a few words from the Bible, but they are a Rock of Gibraltar on which the safety of Europe and America and Asia and Africa and Australia rests, and they are the words that Europe must remember now if she is not to perish in this hour of victory.

If we do not work we cannot eat, for we shall have no food. Famine is staring aghast across Europe. We have killed millions of men and wasted millions of tons of precious things, and the destruction of War must be followed by the construction of Peace.

There is food enough for a little while, and it can be made to go round if all men work and do their utmost. If men will not work the winning of the war was not worth while, for famine must come. To every one of us stern Nature sends her message of salvation now—Work, and, whatever you are working at, do it with your might. A. M.



THE EDITOR'S TABLE

Fleetway House, Farringdon Street, London
above the hidden waters of the ancient River
Fleet, the cradle of the journalism of the world



The Peace of a Garden

THAT was a very interesting remark of Lord Robert Cecil's, whose reputation in the nation has steadily increased in the last few years.

Our British love of flowers, says Lord Robert, is remarkable among the nations of the world. He thinks it is a type and product of our civilisation, because this country has had a greater share of the blessings of foreign and domestic peace than any other country.

We like the picture of our country as a garden of peace. If the Kaiser could have loved a garden, if he could have sought and found his pleasure there instead of on a battlefield, how much suffering and sin the world might have been saved!

Who Has Lost a Fortune?

HAVE you forgotten the thousand pounds you have in the bank, or the box of jewels you deposited there? Many people have.

One of the great London banks has been giving evidence before a Parliamentary Committee, and it has accounts amounting to £140,000 that have been forgotten for years and are not expected to be claimed. One of them is 150 years old. The bank has also over a hundred boxes of plate or jewels or documents not expected to be claimed.

A strange thing is memory, but we can all be glad that people can afford to forget their balance at the bank. In one case a balance was claimed after 34 years, and in another after 79, and people often call at the bank, apparently mad, about some long-lost balance. What a curious world it is!

Proverb of the Day



To those who keep up prices by buying fine clothes:

A monkey remains a monkey though dressed in silk

Mr. Carnegie's Rhododendrons

IT is told of Mr. Carnegie that he loved flowers, and we have no doubt that in the last few years of his life, when his health gave way and he could not come back home to Scotland and his Highland castle, his flowers would give him more pleasure than all his millions. It is said that once a boy rendered Mr. Carnegie a special service, and the grateful man marked his thankfulness by giving the boy two of the finest rhododendrons in his garden. We hope he liked them, but we fear he would have thought much more of Mr. Carnegie if he had given him two of the finest sovereigns in his pocket!

Contentment

A modest career,
Sufficient to spend.
A conscience that's clear,
And a dog for a friend.

JESSIE POPE

Two Banners

NOBODY will like those two banners carried in a procession at High Wycombe. One had on it "1914—your country needs you," and the other had on it, "1919—nobody wants you." It is somebody's duty to make every man and woman and boy and girl understand that they are wanted now, when the need for true hearts and ready hands is as great as in the darkest hours since 1914.

They Shall Beat Their Swords into
Ploughshares

The Value and the Cost

THAT is a very clever saying about New York by one of its newspapers—"Surely New Yorkers know the cost of everything and the value of nothing." And surely there never was a time when the cost of anything had so little relation to its value. Every day we pay a shilling for something worth a penny, and nations pay millions for things worth nothing.

Perhaps one of the great lessons of these hard times will be that when they are over we shall begin to appreciate the very great difference between the little word *value* and the little word *cost*.

SAFETY FIRST

Eyes Right

When you step off the
kerb to cross the road.

Eyes Left

When you reach the
middle of the road

You will then see all the
traffic coming towards you.

Overheard at a Station

One young lady is evidently much perturbed by our doctor's notes on Powdered Noses. She has one.

She and her brother stood with their mother at a station, looking up at the Editor's house on the hill, and this is what was said:

Mother: Doesn't the Editor of the Children's Newspaper live there?

P. N. Girl: Yes; I hate that thing.

Mother: So do I; it's so instructive.

Bright Boy: I like it—and I'm going to have it.

Our compliments to Bright Boy.

Youth is the golden period of life, and every well-spent moment will be like good seed planted in an auspicious season.

A Friend Who Pleaded for
the Birds

The friends of birds, the loveliest and freest of created things, will be glad to hear that the interests of Nature's air-children were represented at the Peace Conference in Paris.

We are now reaching the part of the year when birds begin to take their adventurous half-yearly flight to other lands. Where they all go, when, and how, at what height, with what swiftness, under what guidance, are matters that require much observation; but anyone who has watched them is aware that they arrive tamed by weariness and exhaustion, after making their way from island to island, and taking bold headlands as their landmarks.

Heligoland is such a conspicuous landmark, and some kind statesman, whose name has not been disclosed, wished to give Heligoland back to Germany, after the fortifications have been destroyed, on the condition that Germany should protect the tired birds that use it as a resting-place on their overseas route. In the past they have been slaughtered by thousands in their helpless weariness.

The other members of the Conference were sympathetic, but President Wilson thought Germany should not be dictated to in such a manner, and in the end the proposal was dropped.

We wish the President had been as fond of the little birds as of the little peoples.

Tip-Cat

MARKET report: "American bacon remains on the quiet side and inclined to be easier." We understand that the man who ate some is taking a turn.

Physical force: Quinine and iron.

Sir William Osler regrets that there are virtues not worth having. They usually belong to people who are willing to be good for nothing.

PETER PUCK
WANTS TO KNOW
How to keep cool

Miners, in Judge Greenwell's opinion, are the best-paid men in England. Now the Lord Chancellor will be kept discontented.

Made to measure: Milestones.

The Prime Minister, according to the papers, spoke the other day with a voice of much fuller volume. He must have been bringing his opponents to book.

Capital punishment: The income-tax.

Sir Charles Sykes has been explaining why clothes are dear. His explanation is that they cost so much.

The Meanest Man

THERE is a meaner man than the profiteer who sold victory ribbon to the victory men at one shilling an inch. He was in a post office when a soldier who had lost his arm was drawing his pension. The stranger helped the one-armed soldier, and then bowed and left—with the money. That is the meanest yet.

A Child's Prayer for Goodness

Father of light and life, Thou Good Supreme!
O teach me what is good. Teach me Thyself.
Save me from folly, vanity, and vice,
From every low pursuit; and feed my soul
With knowledge, conscious peace, and virtue
pure. JAMES THOMSON

SURPRISE FROM A GLOOMY FOREST A LIVE OKAPI REACHES EUROPE

Creatures Hidden in Africa for Centuries

RAREST ANIMAL KNOWN

By Our Natural Historian

We have in London to-day one of the greatest of natural history treasures, a young gorilla, which is almost certain to die; we have missed the very greatest animal treasure, a young okapi, which is almost certain to live.

The okapi may live because it has been slowly acclimatised, reared by hand for three years by Madame Landaghem, near its native swampy forest in the Congo, where the lady's husband is an officer of the Congo medical service. Our Zoo has had at least six young gorillas, brought from their steamy home, and each has died through lack of slow acclimatisation.

The only way to get a healthy gorilla in London is to have one caught, and kept for two or three years in its own land, and hardened and accustomed to the food of captivity. Then we may bring one to maturity in England.

King of Hide-and-Seek

The okapi has had the advantage of such treatment. It was caught young, artificially fed in its natural climate, and reared in health and strength. Naturalists hoped it was coming to London, but the Belgian lady who has brought it up has patriotically sent it to Antwerp.

She has achieved an unparalleled feat in rearing this animal, for the okapi is the rarest wonder of zoology, the king of camouflage and hide-and-seek. It comes of a very ancient family, older than the stock from which our domestic cattle arose; and the ancient giraffe is descended from the old okapi ancestors. Sir Harry Johnston, the first scientist to describe it, believes the family originated in America, reached the East, and then fled into Africa, where it hid in security in the great forests of the Congo from antiquity until the 20th century.

First Sighting the Okapi

Travellers explored the dark continent north, south, east, and west, but they never saw the okapi, though Sir Harry Johnston believes that the legend of the unicorn may have sprung from native descriptions of the animal. He himself read the legends, and determined as a boy to find the animal, if it existed, and Stanley encouraged him, bidding him seek the "donkey" which the pigmies told him they caught in pitfalls.

For the pigmies, themselves unknown till Stanley found them, were the only people who knew of the okapi. The first evidence we had of it was a piece of okapi skin, worn by a pigmy as a bandolier.

The whole history of the okapi has since been worked out. It lives in the densest forest, not browsing like deer or cattle, but eating leaves of certain plants. It has a voice like a cow, so differing from the giraffe, which, so far as is known, is without a voice.

Antwerp's Reward

Its food, abundant in the forests, is not to be obtained elsewhere, so it was thought to be impossible to bring a living okapi to Europe. But Madame Landaghem has done the only thing to make this course feasible by accustoming her pet to food which can be procured in its new home in the Antwerp Zoo. The Antwerp Zoo suffered more than any other during the war, and when the German guns were shelling the city, its wild beasts had to be slain lest they should escape among the refugees. With the coming of peace it obtains the rarest prize in the zoological world. E. A. B.

A LITTLE BIT OF SUGAR FOR THE BEE

Europe is threatened with famine; so are the bees. The Board of Agriculture has gone to the rescue of the bee-hives.

At this time of the year the hives should have a rich store of honey to take the bees through this winter and next spring, but the larders are almost empty, so empty that the Sugar Commission has granted famine rations to the bees—ten pounds of sugar per hive, which will be issued to beekeepers as soon as possible.

The drought in the early part of the summer is largely responsible for this state of affairs, for the wild flowers were few and far between, and the clover crop in many parts was a failure. Fol-

lowing on the drought, too, came a cold snap, and in cold weather the flowers do not secrete so much of the precious nectar as they do in warm weather, and so the beekeepers must help their little workers if they want honey next year.

The sugar for the bees will be boiled into a thick syrup—half a pint of water to one pound of sugar is the usual recipe, and thus, from ten pounds of sugar, the bees will get fifteen pounds of syrup. The dish of syrup is placed on top of the frames in which the cells are built, just under the roof of the hive. Some of the ration will go to elongate the cells, some to feed the larvae, but the rest will be stored by the bees for winter use.

LABOUR WILL STAND BY THE FLAG



The greatest patriot is the man who works, and the workers have decided to stand by the flag. Labour has rejected the idea of a "Direct Action" strike against the State; it will pursue its aims towards a nobler life by worthier means.

THE UNREST AMONG THE HILL-MEN

There has been another hopeless little outburst among the hill tribes that encircle the great plains of Hindustan. This time it is a Baluchi tribe that has returned to its old game of war.

Many will be surprised at this, for Baluchistan has been quiet under British influence for a long time, and the Baluchis have fought well for us during the Great War.

But it must be remembered that all the hill tribes love war, and, through their tribal feuds, live constantly in its presence. At any time they may have a wrong to avenge, real or imaginary, which will require them to go forth with a rifle and stalk their enemy like deer.

With this spirit abroad among men who are naturally brave, and recover from wounds with amazing rapidity, any war-like stir is sure to set the more adventurous spirits longing for a fight; and as a successful fight with the British produces spoil in rifles, cartridges, and other coveted implements of war, it is the British upon whom the surprises

are sprung in what the hill-man regards as sporting adventures.

Seeing that a succession of these war-like tribes ring Hindustan round for a thousand miles, and that their means of knowing what is going on in the crowded world of the Western nations are vague and untrustworthy, we must not be surprised at outbursts which seem to us incredibly foolish and hopeless. Beluchis and Afghans, Afridis, Pathans, Waziris, Mohmands, Chitralis, and a dozen other breeds of hillmen are liable at any moment to be seized with a desire for adventure, in what they think of as the master game of war.

If we are to understand foreign peoples aright, we must know how their thoughts and notions of honour and right differ from ours. That understanding is necessary with regard to all nations, but most of all in regard to those who, like the hill-men of the Indian borderland, are living many centuries away from the civilised ideas of the twentieth century in Europe.

OUR COUNTRY FIRST WORKMEN PATRIOTS

Defeat of a Very Bad Principle NO STRIKE AGAINST THE NATION

By Our Political Correspondent

The trade-unionists of the country have shown their customary good sense and their high spirit of patriotism by rejecting the plan for making all other British people act in politics as a few think they ought to act.

This plan, called "direct action," was to pass by Parliament and dictate by force what Great Britain shall do, at home and abroad, with the alternative that if she did not do it she should be starved through strikes.

It was suggested that the trade-unionists, or part of them working at businesses on which the life of all the nation depends, should say, "You must do what we want you to do everywhere, or we will ruin and starve you all."

What the Workmen Claim

These men, in fact—many of them men we quite agree with in most things—set themselves up to be the rulers of the country, and the masters of all other men's minds. Anything more preposterous has never been conceived.

The working-men generally, however, have seen the wrong and folly of it all. What they believe is that they should have the power to make better terms with their employers. They claim the right to sell their labour at an agreed rate, or not to sell it at all.

What they do not ask is the right to interfere forcibly in public affairs outside the questions between themselves and their employers. They do not claim to step over the head of Parliament and dictate our dealings with foreign nations.

A Danger Removed

"Direct action," by striking to compel the Government to do whatever a few people think it should do, would substitute the rule of a class for the rule of all, and the wisdom of the great majority of our workers has rejected the proposal. A vote was to have been taken on the subject by the three great industries called the Triple Alliance—the railwaymen, the miners, and the transport workers—but the refusal of the transport workers to have anything to do with the ballot has upset the whole scheme and removed a grave danger to the State.

"Direct action," another name for tyrannical violence and disregard of freedom, has happily been defeated in the best of all ways—that is, by the steady good sense of the great mass of the working people of the country, who would have nothing to do with it. The proper direct action for us all is within the law and not outside it.

OUR DAILY BREAD

Splendid American Wheat Crop

So much of our daily bread comes from over the sea that we have to look out anxiously for news of foreign and colonial wheat crops.

At Rome there is an International Institute of Agriculture which collects information from all countries and forms estimates of harvest prospects.

This institute has just issued a report which shows that the autumn wheat harvest this year is likely to be "fairly satisfactory" as a whole.

The best news is from the United States. There the wheat prospects are so good that it is hoped that the harvest will yield four loaves for every three loaves of last year.

We must hope that that will prove to be true, for Europe's harvests, owing to the war, are only too likely to be poor. It is therefore clearly our duty still to be economical with food. The world is not likely to have food to spare until the autumn of 1920.

Two Men Who Marched With Stanley ONE TAKEN AND THE OTHER LEFT

The Expedition to Rescue a Strange
German From the African Wilds

FORGOTTEN EXPLORER REMINDS US THAT HE LIVES

The world has lost a great citizen and friend of humanity by the death, not long ago, of Mr. Herbert Ward, explorer, artist, and sculptor.

Educated at Mill Hill, at the age of sixteen he sailed in an emigrant ship for New Zealand, and was in turn sailor, digger, coal and gold miner, sail-maker, gymnast in a travelling circus, and stock-rider. He returned to England at last, but the call of adventure was irresistible, and he gave up his life to exploring. Then, when the great war came, he worked himself to death in France for the good of his fellows, aiding the sick, comforting the suffering, feeding the hungry.

When he died he was announced as the last surviving officer of Sir H. M. Stanley's expedition to find Emin Pasha, but a quiet voice comes from Harrow—the quiet, pathetic voice of Mr. Rose-Troup—telling us that, "I, though broken in health, am still living." The names of Ward and Rose-Troup are for ever associated with that memorable expedition in African wilds.

Dark Days in Sudan

Sir Henry Stanley's expedition to relieve Emin Pasha, disastrous though it was, was a greater feat than his quest of Livingstone. Yet a great tragedy it all was.

It arose out of the invasion of the Sudan by the Mahdi, the savage native ruler, and the over-running of the land by his Dervishes. Emin was really a German, named Eduard Schnitzer, but he had served the Turks, embraced their religion, married his old master's widow, and settled in Egypt, where General Gordon found him. Gordon trusted him, and got him appointed governor of the equatorial province. The Mahdi rising overthrew all order in Upper Egypt and the Sudan, led to the death of Gordon, and lost the Sudan to the flag, until Kitchener reconquered it years afterwards. Emin Pasha, established in his province, alone remained in possession, but his Egyptians and natives were in revolt against him; so a British expedition, with Stanley at the head of it, was organised to relieve him and bring him away.

Left Behind

Stanley entered Africa by the mouth of the Congo, exploring unknown territory on the way to Yambuya, where he had to divide his forces. Here he left the ill-fated rear-guard of his expedition, about 400 men, with Ward and Rose-Troup among the officers. They were to follow, when required, with stores.

Stanley, with five Europeans and 384 natives, pushed on for Lake Albert Nyanza to meet Emin. The way lay through 540 miles of trackless forest, through which the sun was seldom seen, where, as Stanley said, the birds nesting in the tree-tops seemed on the roofs of houses fifteen storeys high, while he and his followers were in the basement. A way had to be cut with axes and billhooks; through a gloomy and foodless forest, amid all manner of reptiles and wild animals

and insects terrible even to think of; with ooze over a foot deep, the soil often as treacherous as ice to the bare-footed carriers; creek-beds strewn with sharp-edged oyster shells, streams choked with snags, chilling mist and icy rain, thunder-clatter and sleepless nights, and a score of other horrors.

Emin's Thousand

Half the native carriers died, and when the great lake was reached, Emin, with the natural obstinacy of a German, remained for three months before he would even send boats to meet his rescuer. But the irony was that he now had to send food to Stanley, and it was not until Stanley arranged for him to take with him a mob of over a thousand men and women of all sorts that he consented to march away with his deliverer.

In the meantime dire misfortune had overtaken the rearguard. Treachery by natives brought about the murder of three of the officers, many others died of starvation, and when Stanley arrived three-quarters of them were dead or dying. His achievement in getting them all, with his own followers and Emin's crowd, alive to the coast was one of the surprising feats of his career. Emin was relieved in 1889, but at Zanzibar he left Stanley and went back.

Worker Cut Off From the World

Cut off from the world, he had, through his long years of isolation, built up much knowledge of African languages, of animal life and botany, and made valuable collections of plants and animals; and on his return he continued his work, and tried to spread German influence. But he never recovered his old position, and one day, as he was marching to the coast, he was murdered by Arabs.

Stanley, if he had not brought Emin Pasha back to Europe, brought much new knowledge.

He it was who told the world of the existence of the mighty mountain of Ruwenzori, of Lake Nyanza, as he named it, and, most romantic of all, the story of the pigmies. It was on this expedition that he discovered these marvellous little people of the twilight, whose existence had been reported from ancient times but never proven. Herodotus wrote of the pigmies, but no white man ever saw them down to Stanley's day.

Stirring the German Mind

The British East African Protectorate also arose from this journey of Sir Henry Stanley, and the exploit had also the effect of stimulating German ambitions, so that Germany's colonising activity may be said to have grown out of it too.

The expedition lasted three years, and nearly all the actors in it are gone to their rest; but Mr. Rose-Troup remains, forgotten by the great world, until he himself reminds us that he is happily among us. The public memory is short, and the heroism, the wonder, terror, and tragedy of that Darkest Africa expedition seem to belong to an era as far off as the Armada.

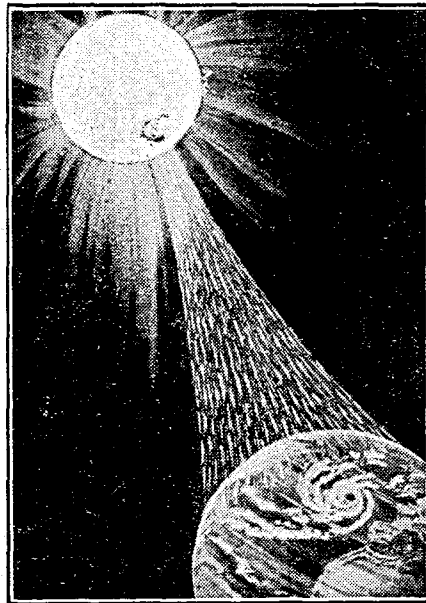
CRY FOR HELP AT SEA How Wireless Saved a Ship OFFICERS IN IRONS AND CAPTAIN LOCKED UP

The rescue from mutiny of the American whisky-ship Mariska by the British oil-ship War Khan is the new romance of wireless telegraphy.

The War Khan was bound for Britain and the Mariska for France, and both were approaching Europe, about forty miles apart, when the War Khan picked up an urgent S.O.S. message. Then she heard no more. Nor was that likely, for the wireless operator of the Mariska was lying unconscious on the floor of his cabin.

But, faithful to the noble tradition of the sea to carry help to those in distress, the captain of the War Khan changed his course and steered for the scene, where he found the strangest sight.

The vessel which had called to him was drifting aimlessly on the ocean,



An artist's picture of the whirlpool in the sun which stopped the telegraphs on earth

her engines stopped, her fires out, her wheel untended; her black crew prostrate with drink in the midst of a litter of empty whisky bottles; her captain locked in his cabin and battered about the head with bludgeons; her officers in irons, and the wireless operator senseless.

The dangerous drink cargo had proved too great a temptation to the coloured crew, who had overpowered the officers, brutally striking down the captain and the wireless operator as soon as he had sent his appealing message over the waters. It is the way of drink to turn men to deeds like these.

The arrival of a boatload of sober British seamen quickly restored order; the wounded captain and other officers were released, and it was the drunken mutineers who went on towards Brest in irons to meet their just punishment.

BOY AND GORILLA Strange Mates at the Zoo

At last a friendly gorilla has been found. Hitherto the gorilla has been one of the most savage of animals, sullen and treacherous, not to be trusted even by the most experienced keeper.

Now one with quite a different disposition is at the London Zoo, lent to the Gardens by an officer. Instead of regarding mankind bitterly as enemies, he evidently values them as friends, and particularly a boy who is his companion. The two come to the Zoo together in a taxi, and go home in the same way.

The time they spend at the Zoo in a large cage is not a performance; it is a natural way of passing the time pleasantly in each other's company, but the public find it very interesting, for it shows the most intelligent of the apes in quite a new light.

See page 12

SUN STORMS AND EARTH STORMS Why the Telegraphs Took a Holiday

SPOT ON THE SUN THAT AFFECTED EUROPE

By Our Scientific Correspondent

A week or two ago what is called a magnetic storm swept the earth, disturbing compass needles, interfering with the sensitive instruments employed in cabling or in wireless, and even making itself felt on the more solid apparatus used for inland telegraphs and telephones.

For two days the European telegraph and telephone system was delayed and interfered with, and the "storm" was the worst that has been known in modern times. Sixteen years ago the telegraphs and telephones of Western Europe broke down for eight hours, and in Geneva the tramway refused to work; but such a long disturbance as two days has not been recorded before.

The effects of the electrical disturbances were felt all over the world. In Australia a beautiful starry spectacle was witnessed in the sky, and all telegraphs and cables were interfered with.

The Earth Dynamo

These magnetic storms are much more thorough and widespread than a thunderstorm; and perhaps it is fortunate for human beings that they are not sensitive to their effects. Their waves—if waves they are—pass through us unseen, unheard, unfelt; but they are of great and real power, nevertheless.

Science is not quite certain of the cause of them, but on the whole opinion inclines to the belief that they are somehow caused by the sun. The earth is itself a great magnet, and as it spins round like a dynamo it must create what is called a magnetic field of immense power round about itself. So, of course, must the sun.

Now, we know that there are electric storms on the sun. They can be seen whenever a giant sunspot appears on the sun's disc; for if this spot be examined it looks like a great whirlpool.

Whirlpools of Blazing Gas

Astronomers who have studied them think that these whirlpools of blazing gas set up electrical storms of the most violent character. It seems reasonable to suppose, therefore, that when one of them is in action it disturbs the electrical and magnetic conditions of the sun, and that these, acting on the earth, set up magnetic storms here.

So far, all is plain sailing; but now a difficulty arises. It is the awkward difficulty that there are often great spots on the sun, and therefore often electrical storms which do not provoke magnetic storms on the earth. Often when the sun is most violently agitated the magnetic atmosphere of the earth is calm.

A way out of this difficulty was suggested some years ago by Mr. E. W. Maunder, of Greenwich Observatory, and his solution is probably the right one. When a great solar storm is in progress billions of electric particles are thrown out; but these electric particles, which may be carried by atoms of the lightest solar gases, travel in a straight path from the patch of disturbance.

Unless the earth lies in the line of fire, these particles shot out from the sun may miss it altogether. In that event no electric storm is provoked on the earth, but when the sun spot is, so to speak, opposite the earth, we get some sprinkling of the violent whirlpool which is shooting out its electric forces into the depths of space.

E. S. G.

PERSIA

Arrangements have been made by which British help will be given to restore the prosperity and independence of Persia. British experts will help in the government, British officers will maintain order, British engineers will construct railways, and there is to be a British loan to help the Persian Treasury.

INVISIBLE HIGHWAY

Spiders That Float On Gossamer

SUMMER DAYS IN THE COUNTRYSIDE

By Our Country Correspondent

At this season of the year, when it is fine, the air is often filled with gossamer floating about in the breeze and glinting in the sun. So fine, indeed, is this silk-like substance that a single filament of it can hardly be seen, but as it floats it becomes entangled with other threads, and so we are able to distinguish it.

It is, of course, produced by tiny spiders, which float about on the gossamer, and it is supposed that they lose the filament to float upon from place to place.

When passed out from the spinnerets of the spider, this substance is a viscid glue, which quickly dries into a fine thread, and as we walk in the country in autumn we may feel the gossamer on our face without its being visible.

The Hop-Dog

The brown hairstreak and clouded yellow butterflies are on the wing, and the caterpillars of the emperor and pale tussock moths may be looked for. The larva of the emperor moth is easily recognised by reason of its bright apple-green colour and its rows of yellow and pink warts, each bearing a tuft of bristles, looking like a worn-out paint brush. It feeds on willow, apple, heather, black-thorn, and bramble, and may be looked for on any of these.

The caterpillar of the pale tussock moth is often called by country people the "hop-dog," although it is found feeding on the hop far less frequently than on the hazel, oak, and poplar. It is a very striking and beautiful caterpillar, being pale green or orange in colour, with hairs of the same colour, and four prominent tufts of yellow hair on the body, and a long, red tuft behind.

A Puffball Breakfast

Funguses are getting more plentiful than ever. On trunks and stems we may see a large fan-shaped growth of dingy yellow, with brown scales. This is the saddle-flap, and is often found growing in clusters.

Among dead leaves in woods from now on till October, a very common fungus is the wood woolly foot, reputed to be poisonous. It is in shape like a Japanese sunshade, the top being of a dull amber and about two inches in diameter; and it has broad gills and an erect stem, the lower part of which is covered with yellowish shaggy filaments looking like wool.

The most striking fungus of all just now is the giant puffball, a large round sphere of yellowish white. It cannot be mistaken for any other growth. Gathered quite fresh, while the flesh is white, it is really delicious fried with eggs and breadcrumbs in plenty of fat; and one ball will make a good meal.

Nuts and Flowers

Chaffinches may be heard singing again now, but the stockdove has stopped its note.

Walnuts are almost ready for pickling, and barberries are ripe. The scarlet fruits of the cuckoopint, known as lords and ladies, are very striking by the wayside, but they are highly poisonous. The dainty purple or white flowers of the meadow saffron, now familiar in meadows, are remarkably like crocuses, but they are not related in any way. C. R.

NEXT WEEK IN THE GARDEN

Plant out successions of green curled and Batavian endive, and tie up for blanching all that are sufficiently advanced. Draw a little earth to the roots of leeks. Plant out successions of lettuce in sheltered situations, and tie up plants as they become fit.

Take cuttings of violas for spring flowering, also pentstemons and antirrhinums, for the sooner these are rooted the more surely will they withstand the winter.

THE CRICKETERS OF PEACE YEAR

Nobody talks against games today. People who have eyes that see below the surface know that the spirit which brought our stout-hearted country undaunted through the most deadly trials she has ever undergone was the spirit cultivated by her fine open-air sports.

Some of the Germans may have taken more readily than our boys to book-learning, others to commercial push, but no country produced a finer style of all-round manhood than the British. And the finest moulding influence was the spirit of our games.

Among them, a clear first, stands cricket. It mixes all classes as no other game can. It is free, quite free, from sordid and unclean ways. The man who could sell a game of cricket would be found out instantly, and excluded from the field. It is not played as a sensation for onlookers. It is played for love of the game, so splendid in its varied forms of skill, so honourable in its tradition of fair and gentlemanly contest.

And so when we, from time to time, glance at the progress of cricket we are, so to speak, feeling the pulse of the nation's manhood. The health of the game is much the same thing as the health of the national spirit. There were croakers who said the game was dying. A love of vulgar thrills, they said, was leaving it neglected. But they were utterly wrong. As soon as the burden of the war was lifted from our hearts cricket came straight back to its own, and now we are following the doings of its heroes just as keenly as we or our fathers followed the play of W. G. Grace and Spofforth, Steel and Studd, and Fry and Trumper.

Who have been coming to the front in the season that started cricket afresh so vigorously? Cricket is a game in which the old players linger, and are not readily superseded. It would be easy to pick an eleven of middle-aged men from the county teams who would hold their own against any eleven under thirty years of age. But to be kept healthy the game must be fed constantly from the country's youth. Can we see plain signs of recruits who may be regarded as candidates for the front rank?

Two young cricketers have shown great promise and one not so young has positively reached the first line. They are Gibson, the captain of the Eton eleven, and Hill Wood, its slow bowler. Gibson is equally strong as a batsman and bowler; and Hill Wood, who seems to have been coached by Mr. Wells, who himself was a surprise bowler as a boy, and now is a master on the college staff, bids fair to be one of the coming "head" bowlers who succeed by skill and thinking. The man who has quite reached the front rank is D. J. Knight, of Oxford and Surrey, a batsman whose skill, strength, and style are finely balanced.

These three "arrivals" belong emphatically to the present season. Of course, the old stagers go on with scarcely diminished vigour. Major Douglas is as good all round as ever, and players like Hobbs and Mead, the Tyldesleys and the Gunns have been joined by Hendren of Middlesex as men liable at any time to make a hundred or so; while Rhodes is piling up another long score of wickets, and jolly George Hirst takes no account of his fifty years. But cricket is a game with plenty of room for all, the ambitious schoolboy and the man who refuses to be old.



Hitch



Hendren



Hobbs



Hirst



Woolley



G. Gunn

NATURAL FACTS OF THE DAY

The universe moves to order like a clock. Sunrise and sunset, moonrise and moonset, high tide at London Bridge, ever they come and ever they go, while nations rise and fall.

Here is next week's time-table of sun, moon, and sea, given for London, from Sunday, August 31.

	Sunday	Tuesday	Friday
Sunrise ..	6.11 a.m.	6.14 a.m.	6.19 a.m.
Sunset ..	7.49 p.m.	7.45 p.m.	7.38 p.m.
Moonrise ..	12.45 p.m.	2.43 p.m.	4.57 p.m.
Moonset ..	9.48 p.m.	11.4 p.m.	1.54 a.m.
Hightide ..	6.6 p.m.	7.25 p.m.	11.3 p.m.
Moonset :	Black figures indicate next day.		

Next Week's Moon



Other Worlds. There are now no planets visible in the evening sky. Although we cannot see her then, Venus is now almost at her nearest to the earth, being about 30,000,000 miles away.

FLYING MEN ROUND BRITAIN

The way Nine Flying Men went round Britain, and what they saw, is fully described in the September issue of My Magazine, now ready everywhere. It is the best magazine in existence, and there will be very few spare copies.

CAN A MAN FLY WITHOUT AN ENGINE?

Odd Scene in France

BICYCLE THAT FLEW FOR 13 YARDS

Mr. Gabriel Poulain, a champion cyclist of France, has achieved the dream of mankind, and flown without an engine.

He has a special bicycle fitted with wings that he can open or close at will. On the Boulevard Victoire, in Paris, he cycled at racing speed, and then opened his wings and rose about three feet from the ground. It was a very short flight, only 13 yards, before the bicycle returned gently to the ground, but it is likely to gain for Mr. Poulain a prize of £400 which has been for five years awaiting the man who could fly ten yards with the use of his own muscles.

Supporting Mr. Poulain are the expert aerial engineers of the Nieuport aeroplane makers, who are seriously studying the problem of enabling men to fly by muscular force alone.

Long Flying Leap

The achievement of the French cyclist is only the first hop in the air. He did not really sustain himself by pedalling as he flew, but stored up energy while racing along the ground, and used this for the long flying leap. For thousands of years men have vainly tried to fly by fixing wings to their bodies, and making the wings flap by ropes running to arms and feet. A pedal working a light propeller on a winged bicycle, may prove the best way of using muscular force for flight.

This is the method upon which the Nieuport Company is working. Their chief engineer estimates that Mr. Poulain develops one-third of a horse-power with his legs, but this is scarcely sufficient to maintain a winged bicycle in the air, with propeller action.

FISH FLIES

A London Dinner by Aeroplane FROM PERTH TO PICCADILLY

There was a very interesting dinner-party at a Piccadilly hotel the other night. Grouse was served which had been that morning shot in Perthshire.

Nothing like that has ever occurred before. The birds were shot that morning 450 miles away, and were carried from Scotland to London in an Avro aeroplane, piloted by Captain Fagin, who left Perth with 60 brace of birds at 11 in the morning and reached London by 7 at night.

Manchester is now being fed by aeroplane with fish as fresh as if it were landed from fishing boats.

Flying Cargoes to Manchester

The first fish aeroplane brought a cargo of twelve stones of fine fish from Fleetwood to Manchester, a distance of over 50 miles, in half an hour. The best railway service takes more than two hours to bring fish from the seaside to Manchester, and at the present time, when no railway service is at its best, the flying fish carrier is unsurpassable.

Dover will soon be able to send her soles to London in a little over half an hour, and Paris will be served at noon with the best of every morning's catch.

Probably it will never pay to carry common fish by aeroplane, but for choice North Sea fish there is a grand opportunity opening out to enterprising trawlers. A small fleet could use a seaplane for discovering schools of common fish; and when the fleet was about to return the machine could be loaded with the pick of the catch, and sent humming to the estuary of the Thames and down the river to Billingsgate.

THE PETIT SALON

We take the liberty of stealing this little picture of the Petit Salon of the French House at the Abbey School, Malvern, written by Connie Perkins for the School Magazine.

Bring the ink, bring the books
To the p'tit salon.
Bring all and hurry,
Forward the "encrier."
"Moins de bruit, s'il vous plait,"
Settle to work, not play,
For time is short today
In the p'tit salon.

OPEN the history book,
Learn all the dates therein,
Then you'll not blunder.
Ours not to think them dry,
Ours not to groan and sigh,
Ours not to weep or cry,
Ours but to work and try,
In the p'tit salon.

PIANOS to right of them,
Pianos to left of them,
Discord and harmony.
Tout affabilité,
Tout amabilité,
Toujours docilité,
Souvent tranquillité,
Dans le p'tit salon.

A halfpenny stamp will take this paper to any child in the world



MARTIN CRUSOE

A BOY'S ADVENTURE ON WIZARD ISLAND

Told by T. C. Bridges, the popular story-writer

CHAPTER 59

The Escape from the Cave

For some moments no one spoke again. The three simply stood and stared at the dark, heaving water in the tunnel. A few shattered remains of the plane floated up amid the turmoil, but both that and the launch were gone. The catastrophe had been so sudden and overwhelming that it left them in a state of dull despair.

The Professor was the first to speak.

"I am afraid this means the end of us," he said, very quietly.

"It's jest de eberlasting finish," groaned Scipio.

Martin shook himself as if trying to rouse out of a bad dream.

"No," he said sharply. "We must not give up. The Lemurians are sending a galley for us."

Professor Distin looked up in surprise.

"A galley?" he repeated.

"Yes. Oh, they are quite friendly now. But I'll tell you all about that later. The galley started before I did. I passed her about half-way here. I don't suppose she can make it in this darkness, but she ought to be here in the morning. What we have to do is to find the safest place we can, and wait until morning. As soon as it's light she'll reach the island."

"If there is any island," put in Scipio dolefully. "De Professor, he say de whole place gwine to blow up like a gunpowder bar'l wen de match drops in."

"Don't grouse," said Martin sharply. "It hasn't blown up yet, and I dare say it will last till we are taken off. The question is, do we stay here where we are out of the way of the ash and smoke, or do we get outside somewhere? What do you say, Professor?"

"I should say that we should be distinctly safer outside," answered the Professor in his calm, dry way. "Another shock such as the last is very likely to bring the roof down, and even if it does not fall upon us it may block our way out. Remember that we cannot leave by the harbour now that our boats are gone."

Martin looked round, and his eyes fell on the mass of broken rock from the roof which covered the steps behind them.

"I expect you're right, sir. Then I suppose we'd best go out by the way leading to the garden?"

"We must try that," replied the Professor.

"Then the sooner the better," said Martin briskly; "a narrow passage like that is easily blocked."

He led the way back up the steps, and the others followed. The electric lights were still burning, casting their clear, white glow over the rubbish strewn on the floor of the Pillared Hall. Small pieces were still falling in every direction; and no wonder, for the whole place—floor, sides and roof—quivered continually, exactly like the lid of a boiling kettle, and the explosions went on at rapid intervals. Though they could not hear, they could feel them plainly.

"We'd better get some grub," said Martin. "There won't be much left outside. Some water, too."

"Dere ain't much water, Marse Martin," said Scipio. "De stream do.e stopped when de fust big shake came. And most ob de rest I put in de launch tanks. Still, I reckon dere's some in de jug."

He ran through the living-room into the kitchen and came out with a big bottle full of water.

"Dat's all dere's left," he said. "And I got a tin ob beef an' a few biscuits."

"Better than nothing," replied Martin cheerfully. He knew better than the others what was before them outside, and was anxious to keep up their spirits.

They made their way down the tunnel leading to the garden entrance. The rock quivered horribly, but happily the roof was still sound. As they got near the entrance the roaring of the volcano became dreadful.

"Sounds like some ugly great debbil was a-waiting for us," said Scipio, with a shiver of dread.

The Professor unlocked the gate, and they stepped out into a darkness that might be felt. So thick was the air with smoke and ashes that even the lurid glare from the great pit of fire, barely two miles away, was hardly visible. Just as they got outside there was another convulsion. A vast sheet of dull red flame lifted itself into the night, and the tortured island shook with the fierce shock of it. The Professor would have fallen had not Martin caught and held him.

And then—a heavy thud close by followed by a series of splintering crashes!

"My golly! Dat mountain's a-throwing rocks at us!" gasped Scipio.

"Scipio is right," said the Professor to Martin. "It will be best to remain under cover in the mouth of the tunnel."

"I suppose it will," replied Martin, and the three moved back into shelter, and sat down on the bare rock floor of the passage.

Martin looked at his wrist watch. It was a little past eleven. Seven hours to dawn, and nothing to do but wait.

It was the longest and most terrible night that any of them had ever passed. The din was frightful, the air almost unbreathable, and about two in the morning the last bit of comfort, the electric light, went out, leaving them in black darkness, lit only by the roaring explosions from the crater.

The crash and thunder of these were deafening, and at times it seemed as if the whole island was going to pieces beneath them.

They tried to talk, but the foul gases in the air caught their throats and parched their mouths so that they could hardly speak. At times each had a sip of lukewarm water from the bottle, but as this was all they had they were obliged to be very careful with it. As for food none of them could touch it.

Luckily for them the roof of the tunnel was solid rock, and in spite of the constant earthquakes did not break or fall.

The worst of things comes to an end, and at last a sickly yellow light began to break through the foul gloom, and they knew that somewhere the sun was shining. Martin touched the Professor's arm.

"Time to be moving," he said quietly.

CHAPTER 60

When Daylight Came

The Professor staggered to his feet. The horrors of the night had left him very weak and helpless. Martin took his arm and held him firmly.

"A bit stiff," said the old man hoarsely. He was as plucky as they make them, and would not give in.

"It's not as bad as it was," Martin said hopefully. "The explosions are less violent, and there are no more stones falling."

"An' dat's a mighty good job, too," put in Scipio. "De Professor say my skull mighty thick, but I jest know one of dem rocks would dent it bad."

In spite of everything Martin laughed, and the three men moved slowly through the deep ash in the direction of the sea.

The whole face of the island was changed. Not a green thing was to be seen anywhere. The drifts of ash were knee-deep in places, while great black, burnt-looking rocks littered the ground in every direction. But the worst of it was the huge cracks and crevices which seamed the torn earth in every direction. Some gaped six feet wide, running down to fearful depths.

The little party had to probe the ground with a stick before each step, for many of these cracks were so hidden under the masses of ash that they might have walked into one without seeing it.

The Professor glanced up the slope to where some skeleton trunks stood out above the blackened waste.

"My poor garden!" he said sadly.

Martin's heart ached for him. All these years of work gone within a few hours. And the Professor was too old to start again—at least in this life.

"There's the sea!" said Martin, pointing. He wanted to get the Professor's thoughts off the ruin of the once beautiful island.

There was the sea indeed—but such a sea! As far as eye could reach, it was grey with floating ash. Banks of foul vapour hung in the heavy air. The whole sky was clouded with smoke from the crater.

"It's getting lighter," continued Martin, trying to speak cheerfully. "And there's a little air moving. I dare say we shall soon be able to see the galley."

"Let us get out upon the point over there," said the Professor. "We shall get a good view from that height, and we shall be farther from the crater, too."

Martin nodded, and they started away to the left. It took them an hour, and the Professor was very weary before they reached it. Martin made him sit down under a projecting shelf of rock facing the sea, and gave him a little water.

By this time the air was clearer. A good breeze was blowing from the north-west, and the horizon was rapidly widening. The volcano, too, seemed to have done its worst. The eruptions were less frequent and less violent.

Scipio had climbed to the highest point, and stood watching the sea. Presently they heard him yell.

"Dere's the ship, boss! I done see him!"

Martin leaped up beside him. Sure enough there was the galley some six or seven miles away. Martin stared at her.

"What's dem folk doing, Marse Martin?" asked Scipio, with a puzzled frown. "Dey ain't a-coming dis way!"

"You're right," replied Martin, slowly. "I can't make it out. They're going away to the north."

His field-glasses were slung in a case at his side. He took them out and focussed them on the vessel. Now he could see her plainly. He noticed that the oars were rising and falling very slowly, and that she was moving at a mere crawl.

"Scipio, she can't get here," he said dully.

"For de goodness sake, why not?" demanded Scipio.

"The weed. The weed has been driven in by some freak of the current—or, more likely, by the tidal wave. 'It's all round the island, a regular barrier.'"

Scipio's black face turned a slaty grey. His eyes were full of fear.

"Den we's got to stay hyah, boss?"

"It looks like it," replied Martin heavily.

"Who's gwine to tell the Professor?" demanded Scipio.

For answer Martin turned and scrambled down the rock.

The Professor, tired out, was dozing in his refuge. His old face looked deeply lined and worn. But there was no use in putting off the ill tidings. Martin roused him and told him what had happened.

For a moment the Professor looked badly frightened, but only for a moment. Then he was his quiet self again.

"My poor boy!" he said quietly.

"Me! Never mind about me," returned Martin. "It's you I'm thinking about."

The professor shook his head.

"It matters little about me, Martin. My race is nearly run. It is different for a boy like you. But we will not give up," he continued. "The eruption seems to be over. The cave is still safe, and there is food in it. Let us go back and see what we can do."

Martin shook his head.

"You forget, sir," he said. "There may be food, but there is no water. The stream has stopped, and that was our only source of supply. If we can't find some way of getting off the island I am afraid that we are done for."

TO BE CONTINUED

NOTES AND QUERIES

What is a Funded Debt? A funded debt is the permanent debt of a government or corporation, on which a fixed rate of interest is paid. It is in distinction to floating debt, which is made up of bills, drafts, and notes that have to be paid or renewed at various dates.

What is a Bureaucracy? A bureaucracy is a form of government where officials dominate everything, as distinct from a democracy where the people govern, or an aristocracy where, theoretically, the aristos, or best, rule.

What is a Committee of Ways and Means? A Committee of Ways and Means is the whole House of Commons sitting as a Committee to discuss the Budget and determine the best ways and means of raising the money needed to carry on the country.

How Not to Find a Gas Leak



A well-known Indiana man, One dark night last week, Went to the cellar with a match, In search of a gas leak. He found it.

Five-Minute Story

GILDED GINGERBREAD

Bill Doody once saw a fairy as he sat on a rock beside the bonnie Lake Killarney. And this was how it came about.

There sat Bill, pouring out his sorrows to the cold lake, for it was rent-day on the morrow, and the poor creature had not a penny-piece to pay it, for crops were bad and times hard. And the landlord's agent, a man as cruel as he was ugly, had sworn to turn out Bill Doody and his wife and children, without a stick or a rag between them, unless the golden guineas that Bill owed were put before him at twelve by the clock.

"Oh, ullagone, ullagone! It's a cruel world!" cried poor Bill Doody. "Faith, what will we do, and where shall we go?"

Then, from behind a furze-bush, out stepped an odd little gentleman.

"What's the matter with you, poor man?" cried the little gentleman.

"Faith, your honour," cried Bill Doody, "the heart in me is like lead, for tomorrow we'll have no candle but the stars, and may the saints have mercy on us all!" Then he told his story about the unjust agent.

"Take this purse, Bill Doody," said the odd little man. "Pay your rent, and leave me to give the agent fellow a lesson." Then he gave Bill a purse stuffed with gold, and disappeared in the twinkling of an eye.

"The saints be praised!" cried Bill, full of joy; and the next morning there he was in his best brass buttons, as bold as brass too, in the agent's office.

"Here it is, your honour," said Bill, and instead of cringing and begging for mercy once more, he put down a pile of golden guineas before the astonished agent. "And please to give a receipt, your honour," he said. "For I'll be wanting the little bit of paper to show to the constable you ordered to turn me out."

And, with the gold before him, the agent could do nothing but write a receipt for it, which he did in great vexation; and Bill Doody strutted out as proud as a peacock.

But it was not an hour had passed before the agent was dancing with rage, for he had made a strange discovery. He went to put Bill Doody's gold in a leather bag, but on the table where it had lain there was nothing but a neat pile of gingerbread, each one stamped with the king's head as fine as you please, and baked a nice golden brown.

Bill Doody's rent had been paid with fairy gold, and there was nothing the agent could do, for he had written the receipt with his own hand.

So Bill Doody stayed in his little cabin on the shores of bonnie Killarney, and the heartless agent learnt how the little people protect the innocent and play fairy tricks on the wicked.

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The Children's Newspaper

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Let Mirth Go On, Let Pleasure Know No Pause



Dr. MERRYMAN

"But suppose," said one of the spectators at the aerodrome, "that the parachute should fail to open after you had jumped off—what then?"

"That wouldn't stop me," answered the parachutist. "I'd come right down."

Pretty Boxes Made at Home

With some cardboard, some coloured paper, and pictures cut from a newspaper or a magazine, pretty little boxes for pins, buttons, and other small objects may be made at home.

Any odd pieces of cardboard may be used. Rule the cardboard out to the measurements shown in the first figure. Then, with the point of a knife or scissors, prick along the dotted lines and bend up the outer flaps. Now cut a strip of paper long enough to go all round and two inches wide, and paste this round the turned-up edges of the cardboard, as shown in the second figure.

To make the lid you proceed exactly as with the box, only you make the edges that are to be turned up one inch instead of two, and the centre part, inside the dotted lines, is made just a trifle larger than the box.

Having selected the prettiest picture you can find, you paste it on top of the lid and your box is quite complete.

What is This? WONRODE

From these seven letters make one word. *Answer next week*

Brown: "I always thought the young bard's spring poem was a harmless little thing."

Green: "So it is, until he begins to spring it."

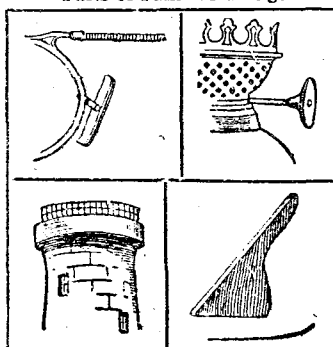
On a Man With a Large Nose

Walking out the other day,
Upon a certain plan,
I met a nose upon the way;
Behind it was a man;
I called upon the nose to stop,
And when it had done so,
The man behind the nose came up.
They made Zenobio.

THOMAS PAINE

What is it a man hates to have,
and yet never wishes to lose?
A bald head.

Parts of Familiar Things



We are all familiar with these parts of things.
Do you know what they are?
Answers next week

Do You Live in Warwickshire?

Warwickshire is the district or stewardship of Warwick, and that name comes from the Old English word *wic*, a dwelling or village, and the proper noun *Waerings*, the name of a Teutonic tribe that originally lived on the Baltic shores. The word Warwick therefore means the abode of the Waerings.

The Tongue

"The boneless tongue, so small and weak,
Can crush and kill," declared the Greek.

"The tongue destroys a greater horde,"
The Turk asserts, "than does the sword."

The Persian proverb wisely saith:
"A lengthy tongue—an early death."

Or sometimes takes this form instead,
"Don't let your tongue cut off your head."

"The tongue can speak a word whose speed,"
Say the Chinese, "outstrips the steed."

While Arab sages this impart,
"The tongue's great storehouse is the heart."

From Hebrew wit the maxim sprung,
"Though feet should slip, ne'er let the tongue."

The sacred writer crowns the whole,
"Who keeps his tongue doth keep his soul."

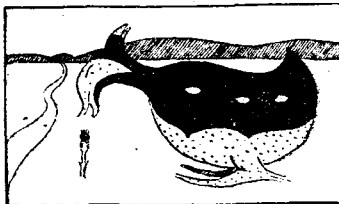
Is Your Name Cooper?

The word really means "cupper" and refers to a man whose business it was to make cups and similar vessels or coops, that is, tubs. One of your ancestors must have followed this occupation, and the name of his business gradually became the surname of his family and so descended to you.

"Why do herrings have so many more illnesses than other fish?" said Teddy to his eldest brother. "Who says they do?" asked his brother.

"Why, this book says that thousands upon thousands are cured every year."

The Zoo That Never Was



The Snod

The Snod is blackish, but one day
It hopes quite black to be.
Do-creatures ever turn that way?
Well, we must wait and see.

Poser

If you move the dressing-table
in your bed-room will the wash-stand?

Buried Boys' Names

A boy's name is concealed in each of the following sentences:
The freshly watered gardens were very refreshing.

His crude art hurt the great painter's susceptibilities.

The wicked warder was very cruel to the new convict.

This age or generation will never again know such terrors.

She likes jam, especially that made from the greengages.

Answers next week

The Art of Knotting

Mr. Burke once intended a lady to please,
Observing some work that was pinned to her knees,

By asking what she had got.
"I'm knotting," she answered,

"'tis tiresome work,
But pretty when done; can you knot, Mr. Burke?"

"No, madam," said he, "I cannot."

ANSWERS TO LAST WEEK'S PUZZLE Is Your Name Here?

The names were Mark and Maisie.

Jacko Up Too Late

One morning Jacko simply couldn't wake up. He didn't even hear the alarm go off. Chimp Junior flung a wet sponge at him as they all went down to breakfast, and Jacko jumped up with a start.

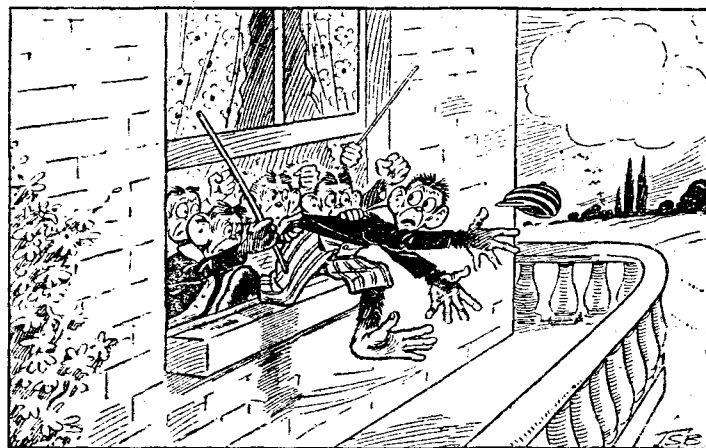
"Get up," shouted the boys.

"You might have called me," grumbled Jacko, flinging the sponge back. The boys dodged it, and it fell whack against the white wall and left a beautiful black patch behind it.

Jacko got two bad marks that morning—one for being late, and the other for marking the dormitory wall.

"I'll pay them out; see if I don't!" he vowed.

He woke up early next morning when the alarm went off, and when the boys called him he answered them in a sleepy voice, and



shut his eyes again. So they let him alone, and trooped out of the room.

In a flash Jacko hopped out of bed, darted to the top of the stairs, and listened.

"What ever's happened?" he heard them say in surprise. "Blinds down, no breakfast. What on earth is wrong with cook?"

"Seems she's got Jacko's complaint," said Chimp Junior.

"What does all this noise mean?" cried the master's stern voice. "Go back to bed, all of you."

They rushed to the grandfather clock.

"Five o'clock!" they said, staring at each other. "Then the alarm has gone wrong—or somebody has been playing about with it."

"It's Jacko!" cried Chimp Junior. "He's paying us out for yesterday. After him, boys!" And they rushed upstairs.

Jacko flew to the window; but it was shut, and before he could get out they caught him and held him fast. Poor Jacko! They gave him paddywhack till he squealed for mercy!

There Was an Old Man of Tarentum



There was an old man of Tarentum
Who gnashed all his teeth till he bent 'em;
When they asked him the cost
Of what he had lost,
He replied "I can't say, for I rent 'em."

The Giant of Music

A year or two before the end of the 17th century a little orphan boy who lived with his brother in a Saxon town used to get up in the night, when everyone else was asleep, creep downstairs to a cupboard where his brother kept his music locked up, and, putting his hand through the railed door, would take out the music. Then taking this to his garret bedroom, he would copy out the notes by the light of the moon.

A few years later the brother died, and the boy, now fourteen years of age, was thrown upon his own resources. He found a place in a choir, but almost immediately his voice broke, and how he managed to live it is impossible to say. At this time his chief delight was to walk from Luneburg, where he lived, to Hamburg, about five miles away, to hear a famous musician play the organ in a church there.

This boy came of the most musical family that probably the world has ever known. At one time there were no fewer than 25 members of it more or less famous organists in Europe, and at Erfurt the surname of the family came to be used as a synonym for musician, just as we call a giant a Goliath or a driver a Jehu.

The lad obtained a position as violinist in a Duke's Chapel choir, but the congregation forgot to sing, and used to listen in rapture to the music which he drew from his violin.

He moved from place to place, holding various positions with very small salaries, and one day played in a contest with a popular French musician before the King of Saxony. So superior was he that his despondent competitor slunk away from the town and never came back.

While he was becoming famous as a musician he was also making a great name as a composer; and his reputation has increased with the passing of the years. Today he is looked upon as second only to Handel among his contemporaries, and that great composer always referred to him as "the giant of music." The considered opinion of the best authorities today is that he was the father of modern music. He composed hundreds of cantatas, and his Passion music is the finest in the world.

Frederick the Great honoured him, but though he had been so famous, when he died, on July 28, 1750, he was poor, and no monument marks his resting place in St. John's Church at Leipzig. He had been a kind, good living man, had married twice, and had no fewer than twenty children whom he dearly loved. Here is his portrait. Who was he?



The Learned Wit last week was Erasmus

The Children's Newspaper grows out of My Magazine, the monthly the whole world loves. My Magazine grew out of the Children's Encyclopedia, the greatest book for children in the world. The Magazine appears on the 15th of each month, and the Editor's address is: Arthur Mee, Fleetway House, Farringdon St., London, E.C. 4.

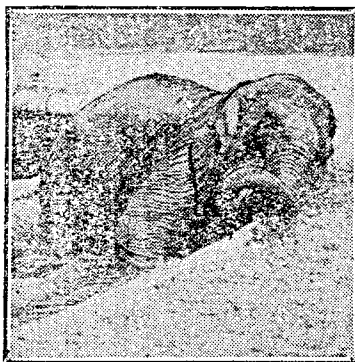
CHILDREN'S NEWSPAPER

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SCENES IN THE HEAT WAVE. PICK-A-BACK WITH A GORILLA. FINE HORSE JUMP



His new sun-bonnet



Two little Londoners resting in the heat of the noonday sun



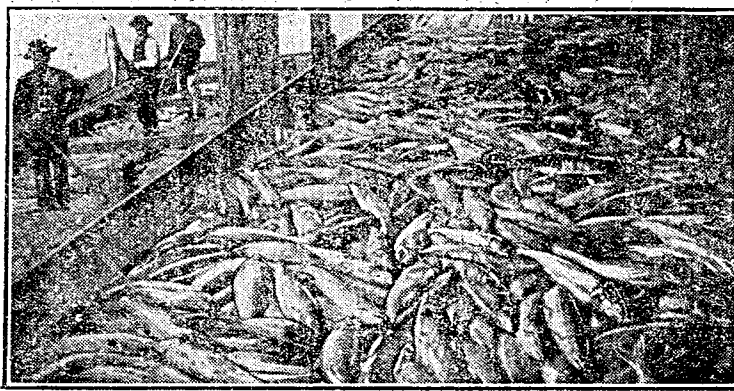
A fine jump at the Aldershot Horse Show



The boy who plays with the gorilla in the London Zoological Gardens. See story on page 8



A cool bath for the penguins at the London Zoo



Salmon in Fraser River, in British Columbia, which are threatened with extinction. See story on page 1



Indian lady visiting London to plead for the franchise for Indian women



Miss Woodgate, one of the winners in the Juvenile Tennis Tournament at Framlingham



Cool



Earl Haig congratulates Leila Watson on winning a first prize in the Children's Pony Class at Aldershot Horse Show